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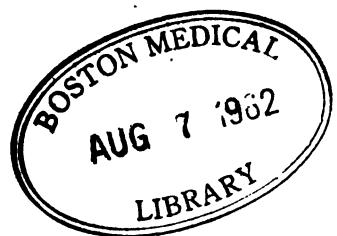
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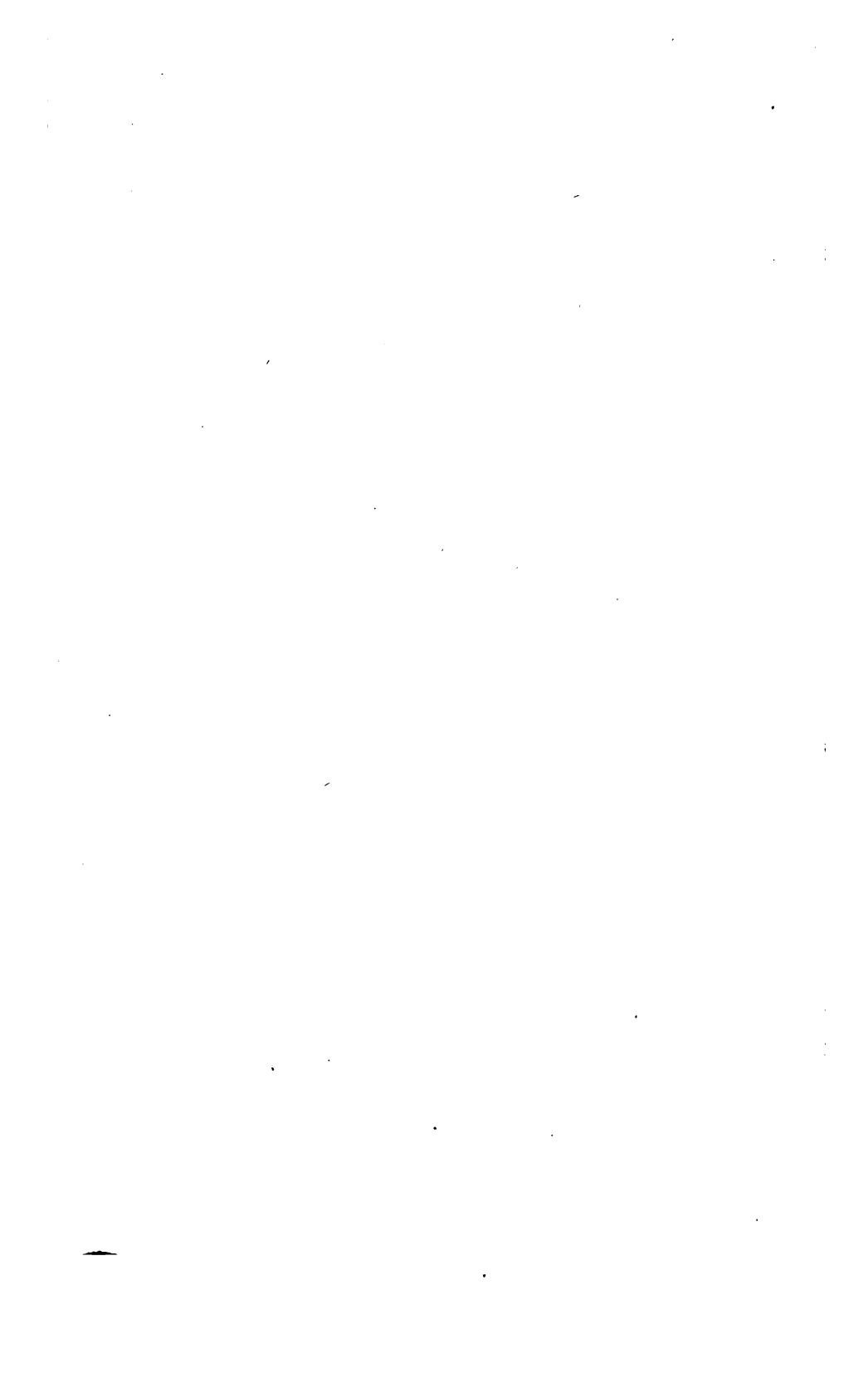
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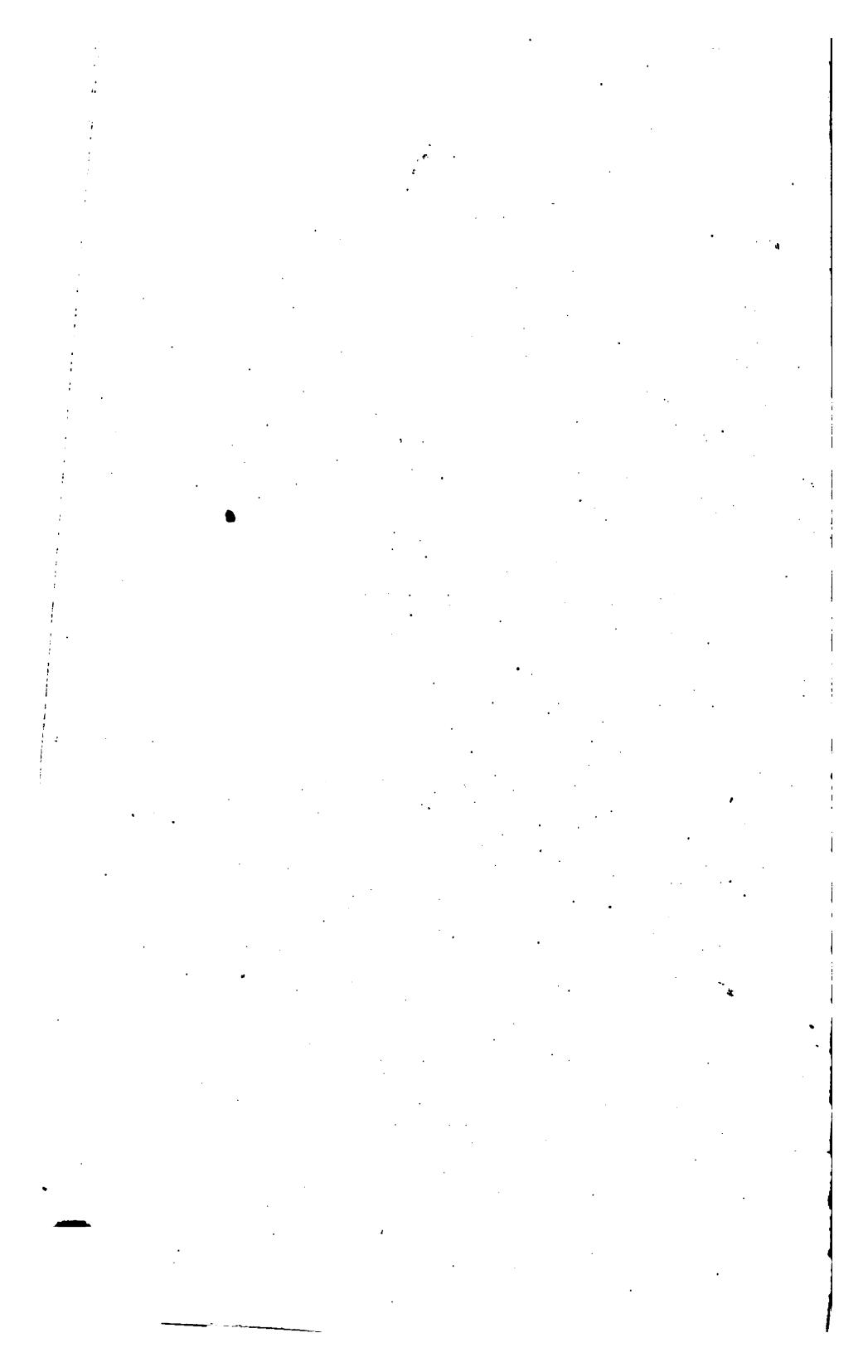
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THE  
PEOPLE'S  
DENTAL JOURNAL;

EDITED BY

WALTER W. ALLPORT, D. D. S.,

AND



VOL. I.

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THE

# PEOPLE'S DENTAL JOURNAL.

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JANUARY, 1868.

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## SALUTATORY.

Sound and well-arranged teeth are organs the importance of which cannot well be over-estimated, whether we regard them as instruments for dividing and properly preparing our food, before being mixed with the gastric juice of the stomach, which preparation is necessary to a healthy digestion, or as ornaments to the mouth, the most interesting and important of all the features—where beauty sits upon her ivory throne—where character leaves its impress, and where the heart and its affections find utterance. And yet, when we walk the streets, or enter the public hall, or drawing-room, and see so many distorted mouths, from crowded or badly-arranged sets of teeth, showing the want of early attention—or teeth with jagged edges, blackened and shattered crowns, standing as monuments of early and continued neglect, one can but be forced to the conclusion, that comparatively few really appreciate the importance of these organs, in their relation either to personal beauty, or a healthy condition of the body.

To diffuse useful information among the people in regard to the value of sound and healthy teeth; to point out the necessary means of securing the proper arrangement of children's teeth; the causes that produce decay of the teeth; the necessity of constant care in keeping the teeth clean, together with the means of accomplishing it; to call attention to the importance of having the teeth *properly treated* and filled when decayed, as well as the proper method of setting artificial teeth, when

the natural ones are *no longer of use*,—in a word, to set forth briefly and practically, all that is needful to keep the mouth in a healthy and working condition, is the object in view in publishing the “People’s Dental Journal.”

In furtherance of this object, we propose to publish, from time to time, short, plain and practical articles upon dental subjects, that will be of interest to, and may be easily comprehended by the general reader. In doing this, we do not, of course, expect to make the reader a dentist; but we do hope to furnish him with such information in regard to his teeth, and if a parent, with regard to those of his children, that he will more fully appreciate their value, know better how to take proper care of them, and also be more fully prepared to discriminate between the *real* dentist and the impudent pretender.

It is thought that a Journal of this kind, even apart from the useful knowledge it may convey, may, in its periodical visits to the family circle, act as a faithful though silent monitor, to call attention to the practical matters of sound and beautiful teeth, which all are ready enough to admit the importance of, and yet but too prone to neglect. If so, we shall have the satisfaction not only of having aimed to supply what has hitherto been a desideratum, but of contributing something which may be of incalculable and lasting good to the public.

A.

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#### CAUSES OF THE DECAY OF THE TEETH.

The frequency with which teeth decay and are lost, and the intimate relation existing between the condition of these organs and the general health, should render a knowledge of the causes of this decay, a matter of deep interest to every individual. None are exempt from it, and few indeed seem to escape its ravages.

Many theories were formerly advanced to account for *caries\** of the teeth; but only until within the last fifty years have the real causes been understood. To enable the reader better to understand this subject, we will, so far as is necessary for our present purpose, and in as few words as possible, describe the general structure of the teeth, and the agents that operate to produce their decay.

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\* Decay.

**DENTINE.** The inner portion of the hard structure of a tooth is called dentine,—tooth-bone—a substance containing more lime, and much harder than the other bones of the body. It is composed of about 72 parts mineral matter (69 of which are lime), to 28 parts animal matter. These proportions vary somewhat in different individuals, and like all the other bony structures, grow harder by an increase of mineral, and corresponding decrease of animal matter, as the individual grows older.

**ENAMEL.** As a tooth stands in the mouth, the enamel is the only portion of it exposed to view. It serves to cover and protect the *dentine*. It is composed of 99 parts mineral, (94 of which are lime), to 1 part animal matter, and is the hardest of all structures in the animal economy.

With this statement of the composition of the teeth, the reader will more readily appreciate the correctness of the conclusion, when we say that all good dentists, and writers upon this subject, now consider caries of the teeth to be the result of external corrosive agents, acting upon and dissolving, or *eating out*, the earthy portion of their structure.

These agents consist mainly of *acids*, taken into the mouth as medicinal agents, or for pleasure—or originating in a vitiated state of the secretions of the mouth, resulting from an impaired condition of the general health—or from the decomposition of particles of food lodged between and around the teeth.

Such being the cause of decay, the means necessary to be used to prevent it, are apparent. If the *secretions* of the mouth are *vitiated*, this condition should be corrected by proper medical treatment of the general health. The administration of medicinal agents containing acids, should, if possible, be followed by a cleansing of the teeth, and rinsing of the mouth with a properly prepared alkaline solution. But the great and almost universal cause of the decay of teeth, is *want of cleanliness*. The teeth should be kept clean—*absolutely clean*—as a preventive of their decay and loss, and of large bills with the dentist.

We do not mean to say that attention to these matters will in all cases secure exemption from decay. For, as people must eat and drink, and in seasons of sickness or disability, take substances into their mouths injurious to their teeth, and as some have defective or imperfectly organized teeth, it would be impossible in every case to prevent, entirely, decay at certain vulnera-

ble points. Still, it is true, that a prompt and careful attention to cleansing the teeth after each meal, or as often as anything deleterious is taken into the mouth, would go far, in most cases, to secure freedom from decay, and indemnity against their loss.

We shall endeavor hereafter to point out to our readers the means necessary to be used to keep the teeth clean, and also why it is that some teeth are more liable to decay than others.

A.

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### **ARTIFICIAL TEETH.**

We propose in this article to set forth the various methods of supplying the loss of natural teeth. We will first speak of the different bases upon which teeth have been mounted. For convenience, we will name them in the following order: 1st—*Cheoplasty*. 2nd—*Porcelain*. 3rd—*Silver*. 4th—*Gold*. 5th—*Platinum, with Continuous Gum*. 6th—*Vulcanite, or Hard Rubber*.

The first three will claim but a passing remark. *Cheoplasty* is a plate composed of a combination of metals. It is seldom used except in peculiar cases for the lower jaw, where weight is required to overcome the action of the muscles.

2nd. In *Porcelain* work, the teeth and plate are composed of the same material, no metal being used in its construction. It had its *birth, a short existence, and died*.

3rd. *Silver* is mainly used for temporary work, and should seldom be used for that, as its tendency to oxidation, in a majority of cases, renders it unhealthy, and its use should be abandoned, although profitable to the dentist.

4th. *Gold* has become one of the articles of a dentist's *faith*, and should not be spoken lightly of. Teeth properly mounted on this base, are orthodox, and will pass anywhere; still, like all other bases, it has its disadvantages.

5th. The *Platinum with Continuous Gum*, brought before the public by Dr. John Allen, in 1851, has perhaps as many admirers among our best practitioners, as any other base in use. But requiring, as it does, the highest style of manipulation to bring out its qualities, few have enjoyed a commendable reputation in its manufacture. The writer hereof would state, that, having in a number of the "Dental Review," written an article condemnatory of this style of work, he has not changed his views in regard

to it, as he has generally seen it constructed; but made as it may be, and as it is, judging from specimens he has seen from the laboratory of Dr. Allport, with whom he has just become associated, he is forced to the conclusion, that in developing some of the finest points of artistic dentistry, in restoring the original contour of the face, and for natural appearance in the mouth, it has qualities not found in any other base, and in a certain class of cases, it is utterly impossible to make a respectable looking set of teeth upon any other plan. The price, however, necessarily demanded for this style of work, precludes its general use. To meet this difficulty, however, the

*Vulcanite*, or *Hard Rubber* base, was introduced to the profession some seven years ago. This base, in the estimation of many of the leading dentists of the country, possesses most of the good qualities of both Gold and Continuous Gum, and is being extensively used. But, like Continuous Gum, for a full development of its qualities, requires much knowledge, labor and skill. Hence, hundreds, through ignorance and lack of skill, have brought discredit upon it, and then, as a sort of compromise for their worthless labor, have advertised to charge but little for it, leaving their victims to find, when too late, that *work thus done*, is dear at any price. The good qualities of Vulcanite may be summed up as follows: 1st, It is *light*; 2nd, It is *cleanly*, and is not affected by the acids of the mouth; 3rd, It is susceptible of a perfectly *accurate fit*; 4th, It is no more liable to break than any other work—should such an accident occur, it is easily repaired; 5th, With it the contour of the face can be more easily preserved than with any other work, except Continuous Gum.

There are some points of interest to the general reader, in regard to the mode of adjusting plates to the mouth, either in whole or partial sets, which we will leave for a future number of the Journal.

C.

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#### HYGIENIC AND THERAPEUTIC RELATIONS OF GOOD TEETH.

Among the most remarkable of the improvements in medical art within the last twenty years, may be mentioned those based on a better understanding of the philosophy of nutrition. Phys-

## 6      *Hygienic and Therapeutic Relations of Good Teeth.*

iology shows that man is an omnivorous animal—that not only can he subsist on both vegetable and animal food, but that perfection requires that he should employ both. Exceptional cases may be brought forward, it is true, but every physiologist is able at once to show that this does not contravene the general law. The man whose system requires meat alone, or vegetable alone, whether this condition be either a constitutional or acquired one, is not in a normal state of health.

Physiology also demonstrates that every particle of food introduced into the stomach, should first undergo certain chemical, or other changes, by being first thoroughly intermingled with the saliva. It is true, life may be sustained indefinitely where this does not take place; but perfection of health cannot be present. It is not sufficient to wash down food received with other fluids—it is not the sole use of the saliva to facilitate the swallowing process; it is a prominent and necessary digestive fluid. A long train of digestive and other disturbances can be traced directly to neglect of this simple truth—disturbances which the physician may palliate and temporarily remove by his medicines, but which he cannot cure until the cause is obviated. Dyspepsia, hypochondria, hysteria, gloominess of spirits, neuralgia of all locations, and the catalogue might be long extended, are often dependent on this cause alone—baffling medicines and *pathies* of every hue.

Partly from business haste, partly from habit, often from defective teeth, patients “bolt” their food in half-chewed or solid masses, and when the physiological punishment comes, they repair to a physician, giving their order with similar haste, that he shall remove the effect instantly, so that they can go on in the same evil course, until another cry of indignation comes up from the offended organs of the system. It is easier for the physician to give pill, powder, and mixture, than to remonstrate with the patient. It is easier for the patient to swallow them all than to reform. The wagoner, with his mired wheels, prays for Hercules to help him out. The man whose vital wheels are clogged, implores the aid of *Æsculapius*. It were better for both to keep the well surveyed high road. The most that either Hercules or *Æsculapius* can do, is to get them once more upon the right track.

Bad habits of eating, the patient himself must correct; and the dentist must correct the teeth, so that thorough mastication

and insalivation of food received, may secure the prime element of healthy digestion, without which there can be neither continuance of health, or removal of disease. ▲

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**TO THE DENTAL PROFESSION.**

The better class of dentists have long felt the want, and seen the necessity of some mode of communicating with the public, whereby the latter might become better informed both as to the importance of the teeth, and the necessity of taking better care of them; and whereby they might also learn to appreciate the wide difference between good dentists, and those who are unworthy of the name.

Various plans have been proposed and adopted by individuals and associations, to accomplish this object. None, however, as yet have succeeded, for some reason, in accomplishing the result to the extent desired.

Could the people but understand the importance of proper attention to the teeth, and the great and almost vital difference between good and bad dental operations, an earlier and more prompt attention would on their part be paid to these organs. Were this the case, good dentists would everywhere be held in higher repute; none but the best class of dental operators would be tolerated; everything like dental quackery would be brought to an end, and a large amount of suffering and expense be avoided by the community.

So common is the occurrence of decay, and even the total loss of the teeth, among all classes of society, that its frequency has become really alarming to those who are acquainted with its extent, or appreciate the value of these organs. Could the public mind be thoroughly informed and aroused as to these matters, and, as it were, *educated* up to a proper appreciation of their importance, it would go far to rid the profession of a miserable set of *camp-followers* and shams, who are eating out all manliness from our craft, or are hanging, like so many millstones, around the necks of true-hearted and earnest workers, who are seeking to win for their profession an honorable position.

### A Question.

among the recognized and most useful vocations of science and art.

Having for a long time considered this subject in all its aspects, and become more and more convinced of its importance, and feeling that something might be done in this way, both to benefit the public and advance the interests of our profession, and as no one else has seen fit to assume the responsibility, we have ventured on the present enterprise, and hope to receive the cordial support, good-will and *co-operation* of all those in the profession who approve our object.

The present number will show the extent to which it may be made the channel of thought for other writers besides ourselves.

As we shall risk our undertaking, financially, before the public, solely upon its own merits, we would earnestly solicit the efficient support for our journal, of the members of the dental profession.

Our friends can do much to advance the object proposed, not only by sending us communications in accordance with the plan and spirit evinced in the present number, but by calling the attention of their patients personally, and the public through the press, to the Journal, speaking a good word for it whenever opportunity occurs, and by sending us subscribers. ▲.

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### A QUESTION.

We send this, the first number of our Journal, to a large number of persons, many of whom we do not know. We send it for the simple purpose of asking this question :

*Do you wish to subscribe for the People's Dental Journal?*

Now don't answer this question before you have read the present number through. Then, if you think it will be worth the subscription price, just sit down *before you forget it*, and enclose fifty cents in Uncle Sam's postal currency, in a letter, giving your name, post-office, county and State where you reside, and direct it to the "People's Dental Journal," Box 603, Chicago, Illinois, and you will become a subscriber to the first Dental Journal ever published on this plan.

The following article, contributed to the PEOPLE'S DENTAL JOURNAL by a lady friend, is filled with good hard sense, presented in an easy and attractive style, and is well worthy of an attentive perusal. We hope no lady who sees it, will fail to give it a careful reading. It will give us, as well as our readers, pleasure to hear from her again. ▲

### IMPORTANCE OF CARE OF THE TEETH.

Clean, sound and perfect teeth are indispensable in such a variety of ways, that it would seem at first useless to urge a subject of such evident importance upon the attention of the public. And yet, notwithstanding the rapid progress which has been made in advancing dentistry to a science, how few, comparatively, avail themselves of the results of all this care and research.

"For personal comeliness, comfort and health," it has been truly said, "no money is more remunerative than that given to a good dentist." And yet, the great mass of the community continue to treat the subject with indifference, or as one of minor importance.

In regard to the first, no lady we would suppose need be told, that without good teeth, a combination of perfect features goes for naught. The form may be fashioned after "nature's most enchanting mould," the cheek delicately tinged as the sea-shell—the lips "chiseled like Diana's," and "out-blushing the ruby's red;" but let the speech or smile betray ill-set or blackened teeth, and how quickly the illusion vanishes—how in an instant they deform and distort all the features of the "human face divine"!

It is useless for us to deride beauty—it is a power. We have all felt its talismanic influence, and if God has endowed woman with loveliness, for her to neglect these natural charms she has received from her Creator, is to despise the giver. "Every woman," says one, "owes it not only to herself, but to society, to be as beautiful and as charming as she possibly can."

While seeking then to preserve and enhance her charms, every woman of taste and refinement will understand, that the strictest cleanliness in the most minute item, is absolutely necessary; and so, she that would escape the evil of an impure breath, as well as unsightly teeth, must pay scrupulous attention to this important feature of her personal appearance. If parents would bestow a tithe of the money they lavish so freely in adorning their children with senseless gew-gaws, in submitting them to the care of a skillful and intelligent dentist, we should not be continually pained by the sight of so many distorted—so many prematurely decayed teeth.

But dentists' charges are so exorbitant, we often hear it urged. A great deal has been said on the subject of American extravagance; but if we mistake not, those cool, philosophical critics, who have treated of the subject have animadverted rather upon the purposes for which we have so recklessly squandered our money, than upon the expenditure itself. While we freely lavish

fabulous sums—the price of being fashionable—of out-shining our neighbors—it is unquestionably true that all this expenditure has little to do towards contributing to intellectual cultivation—to health, or the sum of human happiness. Few persons seem to realize how much the health depends on the proper care of the teeth; and yet, when we consider that the whole train of horrible neuralgias which rob life of all its enjoyment, may be traced often-times wholly to defective teeth, it seems strange that wisely affectionate, and judicious parents should continue to treat the subject with so little consideration. If it be true, as has been stated, that in our country the national disease lies in the nerves, then whatever tends to ameliorate the wear and tear of the system, should be considered in the highest degree important. People, it is true, have begun to follow a more enlightened hygiene in many particulars, and when the vast benefit of immunity from pain has been duly weighed, it is to be hoped parents will begin to understand that money is judiciously spent in everything which tends to build up a sound physique in their children, rather than in encouraging or lavishing upon them useless extravagance. Human life will thus be prolonged, and the sum of happiness greatly augmented.

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### THE DREAD OF HAVING TEETH FILLED.

"Why don't you have your teeth attended to?" is a question which perhaps many of my readers have had asked them many times; and generally the reply was—"Oh! I dread it so much—it hurts so!"

Now, I wish to say a few words about this terrible hurting, and dread of having operations performed upon the teeth. And my object is, if possible, to remove this dread and apprehension from your minds, as I feel confident that I shall be doing a service to any one who may thus be induced to place himself in the hands of a competent dentist, should any such service be required.

If people generally could realize how much suffering they would avoid, by timely attention to the filling of their teeth—even allowing that it does hurt as much as is generally feared—there would be no necessity for the writing of such an article as this. But few people do realize this, and so I am going to try, as I said before, to lessen your dread of these very necessary operations.

Don't you all know that the dread of suffering is always greater than the suffering warrants, when it comes?

Did any of you ever have a pain to bear, which you knew beforehand was coming, that you did not find very much less when it did come, than you feared?

Anticipation always magnifies sensations, both of pleasure and pain; and this is particularly true with regard to suffering, as connected with dental operations. The patient has such a great dread—cherished, perhaps, for long months—of having anything done to his teeth, that finally, when he makes up his mind to submit to the necessary operations, his imagination is so wrought upon, that he really does suffer, though the dentist has not, perhaps, inflicted a bit of real pain.

How frequently do patients start and shrink under the dentist's hands; when, upon being asked if they suffer from pain, they reply—"No, but I thought it was going to hurt!" This is the very thing you should avoid! You must not think "it's going to," and generally you will find that it don't.

To illustrate this point, I will state a case which occurred under my hands, not long since:

Upon examining a front tooth for a lady, the nerve was found to be exposed, and had to be removed. Now, I suppose you would all think that such an operation was very dreadful, and one you could not submit to. Well, I prepared the cavity partially, and removed the nerve entirely, and after all pain was over, as I took up an instrument I had not before used, and which, probably, looked less pleasing to the lady than those I had before used, she started up, with the exclamation—"Why, what are you going to do? Are you going to take out the nerve?"

When I told her that the nerve was completely removed already, she could hardly believe me; and yet such was the fact, and she had suffered no more than she could bear with perfect patience. But, suppose that she had known that I was about to remove the nerve, do you not see how much greater her suffering would have been? and this extra suffering would all have come from her imagination. Thus, you see how much this "*dread*" has to do with your suffering.

Now, as to the *real* pain attending the operation of filling teeth, you may be sure that it is not very great, and it will generally be found, that where the teeth seem unusually sensitive at the first touch, that the first cut of the instrument removes the most tender portion of the tooth, and the rest of the operation is conducted with comparatively no pain.

And here let me say, that you should always employ a dentist in whom you can place confidence, as otherwise you will suffer more from apprehension, if not from real pain, besides doing both yourself and the dentist an injustice.

A skillful dentist, who has the confidence of his patient, operates much more rapidly, and with far less pain to the patient, than he possibly could do, were the patient evidently distrustful of him, and nervous from apprehension and fear.

So you see that by putting away this "*dread*," and giving your entire confidence to your dentist, you insure yourself freedom from suffering, and a much more thorough and satisfactory operation. And this you can do, if you will, and much more easily than you think; and I am sure it is worth your while to make the effort, for the sake of preserving your teeth. I shall not present any of the manifold reasons why you should wish to preserve them, for they are so self-evident, that no intelligent person, but has a strong desire to do so, though frequently allowing them to be lost, from a groundless fear of the pain necessary to be borne in order to preserve them.

I hope I may have succeeded in placing this subject before my readers in such a manner, that some may be induced to give attention to their teeth, who otherwise might not. If I shall have thus succeeded in never so few cases, I shall be repaid, for I know that any such will thank me bye-and-bye. H.

**SOME OF THE INDICATIONS OF A GOOD DENTIST.**

DAYTON, Ohio, Dec. 21, 1862.

DR. ALLPORT:

Dear Sir—I received your letter in which you asked me to write an article for the first number of a journal you are about starting for the purpose of educating the people upon dental subjects. Knowing you are about to enter upon very difficult, and, perhaps, thankless duties, I cannot refrain from tendering you my sincere wishes for your success, and whatever of support I may be able to give you. While I believe you are to meet with many trials and disappointments, I am glad you have assumed the responsibility, because I believe the public, as well as the profession, will be largely the gainers from the draft your labors will occasion upon your long and varied experience, and that fertility of resource that has enabled you to accomplish so much towards the preservation of the natural teeth. The field is large and the cultivators are few. Of the five thousand dentists in the country, but a very small portion have any claim to professional skill; and they have no adequate conception of the responsibility of their office, or the weighty duties they have undertaken to discharge. They have entered the profession, apparently unconcernedly, after very little reflection, and very imperfect preparation, for the purpose of making money or gaining a subsistence, much as they would become carpenters or shoemakers; and they seem to think as lightly of spoiling a valuable tooth as a shoemaker would a bit of leather, or a carpenter a board. On account of this class of men and the influence they exert, artificial teeth have become unnecessarily frequent; and many of the most beautiful and expressive faces of the country have been sadly marred and altered in expression, which would not have been the case had the community demanded dental instead of mechanical skill. It is this respect for mechanics—this easy credulity—that makes people believe that a man who claims to be a dentist is such in reality, that has ruined so many mouths, and made so many people have so little confidence in dental operations, and so much admiration for artificial teeth. They know a man who can make a really good and serviceable set of teeth, and without stopping to inquire whether that affords any evidence that he is a competent dentist—that he can successfully plug the teeth, or treat the diseases of the mouth—they take him on trust, and, because he utterly fails, they have no confidence in dentists, and resign themselves to the loss of their teeth, and the premature wrinkles and loss of beauty it will occasion, to say nothing of the various inconveniences they must ever after bear.

All this results from the want of popular education on dental subjects; and it is to remedy this—to educate the community up to a proper appreciation of the value of their teeth; to show that it is unnecessary and unwise for them to lose them, and also to show the means of preventing it—that you are starting your journal. As we are a liberty-loving people, that insist upon the exercise of the right to think, act and labor as we like, and without restraint, we have thrown off all those legal requirements of preparation and examination as to knowledge

and skill, that have been found so useful in protecting the community from imposition and malpractice in Europe. We have no legal depth of ignorance below which a man cannot call himself "Doctor," and hang out a sign to decoy the unwary and destroy their health or teeth. This check being wanting, there is no other remedy than to educate the people to such a degree that they can tell the good from the bad, the dentist from the mechanic. At first thought, this seems a hopeless task—like making them theoretical dentists—good judges of dental skill; but, fortunately, there are certain rules, easily learned and comprehended, that will go far to protect them from imposition, and enable them to determine, by the first filling, and often before the tooth is prepared for it, whether the man is a dentist, and worthy of their confidence and patronage, or an impostor that deserves their execration. Hitherto, people have had to take dentists upon trust; to assume and hope they are qualified, capable and honest; and often they did not discover the deception until their teeth were nearly ruined. It is to supply this information, to some degree, that I propose to present some of the qualifications of a dentist, and some of the requisites and conditions that must be present in order to make a good filling, and protect the tooth from further decay: First, he must have at least average ability; a good English education, a classical one if possible; and, also, a good general medical education, in order that he may be able to prescribe for such diseases or morbid conditions as are incompatible with a healthy condition of the mouth. It will not do for the dentist to treat the teeth, and trust to the family physician to take care of the health, and see that it is in such condition that the teeth will suffer no detriment from it; for dentists have so far advanced beyond anything taught in the medical schools in this respect, they see that disease of the teeth arises from such different conditions of the system, and that the system, in turn, is so much affected by disease of the teeth, that they have almost created a new nosology; and they have found special remedies and modes of application, that few physicians would be likely to understand or see the propriety of their use, and fewer would attempt to carry the treatment into successful execution. This must be done by the dentist. He now radically cures neuralgia of the face, and some diseases of the jaw-bones and other bones of the mouth—as caries—without the use of the knife. What, then, are the conditions necessary to save the natural teeth beyond general systematic treatment? First, the teeth should be filled as soon as they commence to decay. Second, teeth that are badly decayed, or that have ached, should either be plugged or extracted, according to the condition of the remaining teeth, and the effect either operation will have upon their future health and permanence. Third, teeth that have gum-boils at the roots must be treated, and the gum-boils healed before they are plugged. Fourth, all teeth must be thoroughly prepared before they are filled, by removing all the decay, and shaping the cavity in such a manner that it will retain the plug. Fifth, the gold must be thoroughly packed or condensed in the cavity.

It will be unnecessary to say anything upon the first point, further than that the teeth cannot be plugged too soon after they have commenced to decay. Often, before there is a visible cavity in the crown of a tooth, the sharp-pointed probe will discover one. If plugged immediately, the decay will not have spread much beneath the enamel; the strength or health of the tooth will not

have been impaired, and the plug will be more easily inserted, and at less expense—every way the operation will be better and more satisfactory. In preparing the cavity of decay for a plug, all food and decayed or softened bone must be removed; all fissures, or deep, unhealthy indentations, leading from a cavity, or to other cavities, should be followed and cut out; and what might be several cavities, formed into one large one, as it is always safer and better to have one large, than several small fillings near together in the same tooth. There should seldom be but two fillings in the crown of any tooth; one in the central, and one in the back indentation; the front indentation can generally be easily cut into the central cavity, and often the back one. This will increase the expense of the filling; but materially increase the value of it; and the tooth will then be much more healthy, and able to resist disease. As the gold does not unite with the tooth, it must be held in its place by mechanical force; in the same manner as a pin driven into an auger-hole. A plug is a pin of gold driven into the cavity of a tooth; and it will be permanent, or not, in proportion as the cavity represents an auger-hole, or a modification of several cut into one. In other words, the walls of a cavity should be perpendicular, and not funnel-shaped; they should not shelfe under, so that the inside is larger than the orifice; as, for various reasons, such cavities, unless very shallow, are not as easily filled, and the plug is not as good for it. Taking an auger-hole as the highest type of a cavity to fill successfully, it will follow that all modifications of such a cavity will present a rounded, or gently curved outline, having no sharp projections, easily broken off in mastication, or sharp fissures difficult to fill so perfectly as to exclude moisture. The margin should be thick, regular, smooth. As the plug is, or should be, a solid ingot of gold, of the precise shape of the cavity, it is not essential for the cavity, in all of its parts, to have perpendicular walls; or if shallow, slightly shelving under; as a slight departure from it, will not endanger the plug; provided the retaining points are of thick and dense bone. More fillings are lost from the breakage of weak retaining points, than, perhaps, from any other cause; and, where they are necessarily weak, as in the front or front-side teeth, where symmetry must be preserved or the gold hidden from view, beauty is temporarily bought at the expense of safety. This is one of the tests of a good dentist. Being perfectly master of his materials, and knowing that he can replace whatever he cuts away, he has no anxiety about the fate of his plug, provided he can give it a good retaining point. In this respect, the difference between him and a poor, cheap pluggar, is very marked. The latter is always afraid to sufficiently cut away the thin, overhanging walls of a cavity, lest the cost of the gold, necessary to fill it, will be greater than the fee he dares to ask for it; and also, if he does so, lest his soft, porous, ill-formed filling will fall out. The result is, that the thin unsupported enamel soon crushes in, and the tooth is lost.

The cavity having been formed, the first step is to so adjust the napkin, that the cavity can be kept dry until the plug is completed. This is sometimes difficult; but, it is very important, as a good filling cannot be made unless the gold is kept dry. The cavity of the tooth is next to be dried, and a piece of gold carried on the point of an instrument to the bottom of it; and condensed

and fastened there; to these other pieces of gold are added and condensed in like manner, until the whole is completed. It should be observed that the gold may be carried to its place and partially condensed, with an instrument of considerable size; having several sharp points; but the condensation or welding, must be completed with a sharp, delicately-pointed instrument, passing repeatedly over the whole surface, until the gold becomes solid—one piece—like an ingot; which, if the tooth were to be extracted and split open, could not be separated into its component parts; but it might be drawn with a hammer, or rolled into a sheet in a rolling-mill. That much less than this will be insufficient to protect the tooth, will be apparent, on reflection. The plug is wanted to supply a portion of the natural tooth, carried away by disease, which was very dense; to supply the place of the still denser enamel, the natural protection of the softer parts of the tooth from the juices of the mouth, and to be as indestructible, and as little liable to change, as the tooth itself. Because, if softer, it will wear more porous; it will absorb or condense; and if not welded into one piece, so as to become an integer, it will disintegrate; any one of which conditions would be fatal to its protecting qualities from further decay. After the plug is finished, it should have a clean, bright, polished surface, continuous with, and representing the enamel of the tooth. The surface should look like gold—like that of a very fine, plain ring; and it should not deteriorate in appearance from wear. It is markedly different from a poor filling, which never has this appearance, but looks from the start rougher and less solid, and often flaky. It soon changes for the worse, and looks redder, more flaky, dingy and dirty, until it scarcely resembles gold.

It would be well for people to bear these rules in mind; to examine their mouths, and those of their families, and in some way get the type of a good filling, which is so pronounced that they can never be deceived. Soft fillings, that are easily and quickly inserted, constitute the great mass of those in the teeth at the present day. They are often so soft that a dentist could condense them one-half, or so much that the cavity would be but little over half full. They are made by men, who either could not, or would not, make them better. They were made to sell, to gain patronage, to catch the unwary, the shoppers or cheapeners; those who want more than their money's worth, and to compete in the market, and sell for a lower price than gold fillings. They are a delusion, that cost the patient his money, and will cost him sore pain, the loss of beauty, expression, and perhaps of health. They are every way bad; so numerous as to give law to the profession, fix the prices, prevent progress, prevent competent and honest men from entering the profession, as a business for life; they drive the competent out by making it difficult for them to sustain their self-respect, even when their prices are so much higher than their neighbors, that they are considered extortioners. In fine, they make dentistry a trade, its members mechanics; synonymous, in the popular estimation, with manufacturers of artificial teeth.

Reader, it will be well for you to bear these things in mind. Before you go to a dentist, ascertain these points, viz.: Does he make his plugs stick, or do you frequently hear of people going back to have fillings re-placed? Do his regular patients frequently suffer from tooth-ache, neuralgia, or gum boils? Is

*Teeth—Their Importance.*

he chiefly distinguished for the number of his sets of artificial teeth? If these questions are answered in the affirmative, he is not the man for you. You want to save your natural teeth, if possible, and you want artificial teeth as a *last resort*. You want a *dentist*—not a mechanic. Wm. A. PLEASE.

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**ELECTRICITY.**

Could the curtain be moved, and a stereoscopic view of the phenomena of electricity be fairly presented, as scientific research has portrayed it, great good would be the result.

We live in a sea of electricity; it permeates our whole being, and is one of the grand essentials to life. Yet how little do we know of the properties of this wonderful force of nature. Dr. Benjamin Franklin caught it from the clouds, and proved that thunder and lightning was but a simple discharge of electricity on a large and magnificent scale. Events in this field of natural science begin to hasten. Philosophers are aroused in both spheres by this "spark of evidence," and each armed with a lasso catches the subtle fluid, and resolves to make it obey the human will.

Events begin to move in platoons. A Morse conceived a spirit course, and electricity becomes the quick-winged messenger of thought to the world.

Medival electricity has gained, during the last decade of years, a position not inferior to any of the branches of electrical science. It has been discovered that even the beautiful electrical coruscations of auroral light bear some relation to a diseased tooth in a feeble body; the sufferer experiences an increase of pain and ugly twinges of neuralgia during the display of its gorgeous dissolving views.

It also has been proven that during the reign of Asiatic cholera, the electrical tension was less in the locality where it prevailed, and as the fatal scourge passed over, the electrical equilibrium was restored.

To know what this one of nature's strongest of forces has to do with the philosophy of life, the laws of disease, and the catastrophe of death, would be interesting to all.

Attention will be called, in the next number of the JOURNAL, to the deleterious effects of electrical batteries produced in the mouth by the use of impure metallic plates, mounted with false teeth. J. H.

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**TEETH—THEIR IMPORTANCE.**

BY C. P. FITCH.

Everything in the universe has its importance. The most diminutive and insignificant weed that sprouts, matures and dies by the roadside fen; the tiniest insect that bathes in sunlight's golden beams at the close of day; the meanest worm that crawls beneath the passing traveler's feet; the unperceived

vapor, an emanation from earth's putrescent surface, that floats toward the pure, blue ether, has each its relative importance. All are instinct with molecular life and activity. The mountain's sterile granite peak, that bares its rocky front to the scathing shock of the passing tempest, and has for centuries battled hard with the howling blast, and which, by continuity of structure, is an integral part of earth's solid rib-work, seems little affected by the repetition, or unchanged in its molecular being; yet the driving hurricane writes mutation upon its craggy front, and succumb it must to the antagonizing forces of its atomic adamantine integrity. It, even when viewed in contrast with the fertile vale, which stretches far away in the distance, has its importance. So the harder structures of the human frame, vitalized by a force least understood, and amenable to laws which preside over living forms, are constituted the pillars, beams and arches of support to the organism, and are essentially important for the maintenance of all harmonious physical action.

The teeth, viewed in reference to their several relations, assume, at once, physiognomical and physiological importance, and their preservation becomes a question of the greatest moment.

The human teeth present two aspects of importance, viz.: Expression and Mastication.

The first has reference to one of a group of features, the natural completeness of which renders the human countenance agreeable, and when, in color, form and size, harmoniously arranged, presents a pleasing and potential aspect; but when marred and fragmentary in appearance, renders the human face hideous and repulsive.

The second has reference, in a physiological sense, to one of a series of acts which constitutes digestion, the normal function of which is essentially necessary to health, even to life itself.

Without a proper comminution of the food, or in medical parlance, the *ingesta*, which act is, or should be, performed by the teeth, we need not expect a continuance of health, even when coupled with an iron constitution; and the harmonious maintenance of these physical acts which change solids into fluids, and thereby render them capable of assimilation and nutrition, cannot be secured.

As important as are the teeth, and as necessary as is their preservation, viewed in these two aspects, yet the subject is but partially comprehended, or, if understood, it is much ignored and disregarded by thousands. A want of cleanliness and attention to these beautiful and highly useful organs, marks the habits of hundreds from the commencement to the close of the year. A trifling expenditure of time and means would preserve the dental apparatus intact, and enhance the comfort and happiness of the individual, by securing that to him for specific use, which nature has been, in numerous instances, lavish in her bestowal, and, deprived of which, expression, beauty and health are laid under contribution, if not entirely sacrificed. How many are met with in every community that bear about with them the filthy and disgusting relics of a former beautiful dental organism!

Others, again, deem it important only to preserve the front, allowing the molar and bicuspid teeth to decay and crumble away. How very strange this infatu-

ation; as though the maintenance of expression about the inlet of the oral cavity (which in itself is highly important) could be considered paramount, or in any sense compensate for the loss of uniformity in natural expression, health and longevity. Disastrous physical results are sure, sooner or later, to follow the loss of the back teeth.

I close these few suggestions by giving utterance to the following thoughts: The preservation of the entire arch of teeth should constitute our chief concern, and not, as is the case with some, manifest a strong desire for the rapid decomposition of these organs, and their artificial substitution. The equivalent that may be demanded and paid for the perpetuity of the teeth, provided this end is attained, is of minor moment, when contrasted with their intrinsic and relative value.

PHILADELPHIA, December, 1862.

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### **DENTAL SHOPPING.**

"Dear me! my teeth are all going to destruction, and they ought to be attended to at once, but it costs so much, I can't afford it."

Reader, you might just as properly say you can't afford to be sick; but nevertheless, you *are* sick, and do employ a good physician, and, of course, pay him.

Your teeth *do* decay; such is the lamentable fact, and they must be attended to, or you will lose them, and you must employ a dentist, and, of course, pay him.

These are facts. The question for you to consider is this: "Can I best afford to have my teeth well, or poorly attended to?"

In reading over your newspaper you find a new advertisement, and, with beaming eye and quickened pulse, you read over a list of prices just established by some dentist or other, who, for some remarkably queer reason, or equally strange facility, as stated, advertises that he is enabled thereby to accommodate his friends in particular, and the world in general, with dentistry in all its branches, *beautifully, excellently and scientifically* done, at the prices named.

And he may have the magnanimity (?) to make some insinuation derogatory to others in his profession, hoping, it would seem, your distrust of them may lead you to him.

The extraordinary low prices surprise you, but as he boldly advertises in a first class paper, you quite naturally believe some kind philanthropist has "turned up" just in time for your case, and you take an early opportunity to have your long neglected mouth restored to health.

In the first place, perhaps you very generously give your own dentist an opportunity of "bidding" against the advertisement. He tells you he can't give you his best services at such rates—and he will not give, neither do you wish, any but the best—which are likely to be less than half his usual rates, and you go away thinking "what an extortioner he is," and though he kindly warns you that it is not always good policy to get cheap dentistry, or buy cheap goods, yet you have made up your mind to "go it blind."

What is your experience? I can tell you. You find that when your teeth are filled, you have paid your cheap dentist a bill as large and probably larger than your own dentist would have charged you, and when you demur, and refer the advertiser to his published rates, you find there is a wide range between his lowest and highest prices, and your work don't happen to come under the low prices.

Or, if you try to find out the probable cost beforehand, you are surprised at the great variety of prices, particularly when you exercise your "shopping" propensities, and you find he will work for any price rather than let you leave his office.

In our humble opinion, you might well question the reliability of his work, and have good reason for thinking his only motive was to get your money, be it much or little.

Reader, is such a man worthy of your confidence?

A dentist of course has the right to discriminate in his charges, so as to favor his patients who are in humble or trying circumstances, as a physician would; but what would you think of a physician who would advertise a list of diseases, and prices to cure the same, without knowing the attending circumstances, or even the progress of the diseases? You would pronounce him a quack, and shun him and employ one recommended by, and of known ability to, your friend, and who had won his way to confidence and respect.

Reader, you may think it good and sharp practice to go "shopping" in dentistry; you might just as well go round among the surgeons and carpenters to see who would amputate your limb the cheapest; in either case you would sooner or later discover that the best operation was the cheapest, though costing more at the time.

You will find that cheap work, whether in filling or inserting teeth, will disappoint you, and that you have spent your money for naught but trouble. Then you are disposed to blame dentists as a class, and, having lost your confidence in them, neglect your mouths and suffer the consequences, and surely the last state is worse than the first; when, had you but shown common sense, and procured the services of a known, competent dentist, and paid him for his labor and skill, you would have been infinitely better off, and dentistry would have had the benefit of your testimony to its untold value, and, too often, unappreciated benefit to mankind.

JAYBEEDE.

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### CHEAP DENTISTRY.

Beguiled by an advertisement in some paper, that "Dentistry in all its branches, can be had at greatly reduced prices," or at "Eastern prices;" and taking it for granted that every one who hangs out his sign as "Surgeon Dentist," and takes especial pains to sign his name with the prefix of "Dr.," is of course a dentist, a call is made. The mouth having been examined, the patient is advised to have all his teeth extracted, as most of them having begun to decay, will not, if filled, last many years, and any expense thus bestowed

*Cheap Dentistry.*

on them be lost; therefore it is best to make a "clean sweep" at once, and have a set of artificial teeth, that will never ache, (but very likely make the patient's friends ache to look at them). The advice is adopted, and the sacrifice made, and teeth, that under the hands of a competent dentist, might have been saved many years, useful, but perhaps not ornamental, are consigned to oblivion.

Then the substitute is provided, and such a one as almost any blacksmith, with a few weeks apprenticeship in some dental "shop," could furnish. They may or may not be suitable in size or color; but in all probability are an exact copy of the set last made, for an individual whose features furnished the very extreme of contrast. The arrangement of the teeth is uniform with that of almost every set of teeth inserted in the office, no matter what the contour of the face. If the mouth be a favorable one, the teeth may answer a tolerable purpose in mastication; but if unfavorable, it is all the same, for the remedy is beyond the comprehension of the so-called dentist, who has managed to secure his pay before the results have been fully comprehended by the victim. This patient has patronized "cheap dentistry,"—has sacrificed what art can never restore; and has obtained a most miserable abortion in the attempt to restore it.

Another patient visits a dentist, who perhaps does not advertise cheap work, but goes upon the principle of "*charging all they will stand*,—if close people, get the most you can, and work accordingly;—if '*high-toned gentlemen*,' make them pay well, as they will think the more of you." Such men, whose only object is gain, are not the ones to be trusted with the duty of saving organs of such importance as the teeth; for, if you can pay them well, then the idea is to fill everything, whether it is worth saving or not, and in not a few instances make cavities where none existed.

On the other hand, let the patient visit the dentist who has earned and established a good reputation, "whose works do praise him,"—and in whom he can place confidence, and feel that whatever is done is the best that can be done. Then when the work is completed, let him remember that the dentist has spent years of study and toil to prepare himself for these duties, and that this preparation is his capital, his stock in trade; and then that he is the best judge of what his services are worth, and that such services are not to be placed in the balance with those of the quack, whose only capital is his assurance.

It is utterly impossible for a dentist to prepare himself for the practice of his profession properly, and then to spend the necessary time on his operations, in order to do his duty to his patients, and assume the responsibility of them, at the prices obtained by some so-called dentists. But then we would not have the reader infer that because the dentist charges a good price, he is necessarily a good dentist; by no means,—for some of the merest botches succeed in getting the highest prices. But the idea is this: that true professional skill should receive its reward, bestowed not grudgingly, but cheerfully. Let the patient have confidence in his dentist, (and never employ one in whom you have not the fullest confidence) not only in the performance of the work, but also as to the price which he deems his services are worth. \*

**OUR CONTRIBUTORS.**

We desire to direct the especial attention of our readers to the articles from our Contributors in the present number. They are all well written, and add much to its value. There are very few who could not read these articles with profit, and they ought to with interest.

Gentlemen, we hope our readers may hear from you frequently through our pages. ▲.

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**OUR ADVERTISEMENTS.**

We wish to call the attention of the public to the advertisements which appear in the first number of the JOURNAL.

WHEELER & WILSON's SEWING MACHINE is the *ne plus ultra* in this branch of life's comforts. It is so firmly *stitched* to the mind of an appreciating public, that it can never be *ripped off*. Mr. Chittenden, (the prince of agents), says, "A good sewing-machine is the first requisite in every family." This is true, providing the teeth have been attended to.

L. D. OLMFSTED & Co.'s INSURANCE AGENCY, is unquestionably one of the most reliable and worthy establishments of the kind in the country, both in the Life and Fire departments. They are the agents for the Connecticut Mutual Life Insurance Co., than which there is not a better institution of the kind in the country.

BRYANT & STRATTON's COMMERCIAL COLLEGE has no superior in the country. The best recommendation a young man can have, who is seeking employment, is, that he is a graduate of this institution.

S. S. WHITE's DENTAL DEPOT, is an indispensable adjunct to every dental office. Without his teeth, the dentist can never do his patient justice, or himself credit.

SARGENT'S DRUG STORE is one of the best in the city, and every way reliable. He gives his personal attention to his business.

The large amount of business done in the establishment of Isaac R. Hitt, is sufficient evidence that in the WAR CLAIM department, he is every way worthy of the confidence of those having claims to adjust. His ability to meet the demands of those wishing to buy or sell real estate, are ample.

THE MATTESON HOUSE still maintains its well-known reputation. It is as conveniently located as any in the city. c.

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**13** Hereafter all the articles of the JOURNAL will be set up in large type.

# NORTH-WESTERN REAL ESTATE AGENCY ISAAC R. HITT & CO.,

No. 88 DEARBORN STREET, CHICAGO, ILL.

Have in their hands for sale, improved and unimproved lands, prairie and timber, lying in thirty-four different Counties of the State of ILLINOIS, including lands upon the line of the Illinois & Michigan Canal; also lands in Cook County, and in the city and suburbs of Chicago. We also have for sale lands in

Iowa, Wisconsin, Indiana, Michigan, Minnesota, Missouri, Kansas and Nebraska.

We continue to pay taxes in all the above States, for non-residents.  
Now is the time to invest in good Western lands, and in Chicago city property.

## THE PENSION AND BOUNTY DEPARTMENT

Of our office will attend promptly to all business sent us. Our facilities for prosecuting and collecting claims against the government are not excelled by those of any firm in the United States. Soldiers, or their heirs, of the present or any of the past wars, are invited to call on us, or address us by letter, with a stamp, and we will answer promptly, without charge for advice.

## REFERENCES.

Hon. Jesse K. Dubois, Auditor, Illinois,	Rev. T. M. Eddy, Editor North Western Christian
" O. M. Hatch, Sec'y State, Illinois,	Advocate, Chicago,
" John Evans, Governor Colorado,	Hon. Grant Goodrich, Chicago,
" John Wilson, Ex. Com. G. L. O., Wash-	Maj. J. H. Kinzie, U. S. Paymaster, Chicago,
ington,	Dr. J. V. Z. Blaney, Army Surgeon, Chicago,
" Cyrus Aldrich, M. C. Minn.	Dr. Horace Wardner, Post Surgeon, Mound City,
" Samuel Elbert, Nebraska,	Hon. Jas. Harlan, U. S. Senator, Iowa.

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## PRESCRIPTION DRUG STORE,

**E. H. SARGENT,  
A P O T H E C A R Y,  
Cor. Randolph and State Streets, Chicago.**

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### A COMPLETE STOCK OF PURE MEDICINES, Fine Chemicals and Preparations,

Of the best quality obtainable, at reasonable prices. Also, a large and well assorted stock of Hair Brushes, Combs, Tooth Brushes, and other Toilet Articles in great variety, the best imported Soaps and Perfumes, Pomades and Oils, Lubin's Extracts, Farina Cologne, Toilet Waters, &c., Sponge of all kinds, Bathing Towels, Hair Gloves and Straps, Flesh Brushes,

### ARTICLES OF DIET FOR INFANTS AND INVALIDS,

Choice Cooking Articles, Salad Oil, Best Scotch Ale and London Porter, Fine Wines, Brandy and other Liquors, selected for Medicinal use, of the purest quality, Congress Water, fresh from the springs.

Manufacturer, by permission, of

**DR. ALLPORT'S DENTIFRICE,**  
Used by thousands in this city, and pronounced by all, the best in use.

THE  
PEOPLE'S DENTAL JOURNAL.

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APRIL, 1863.

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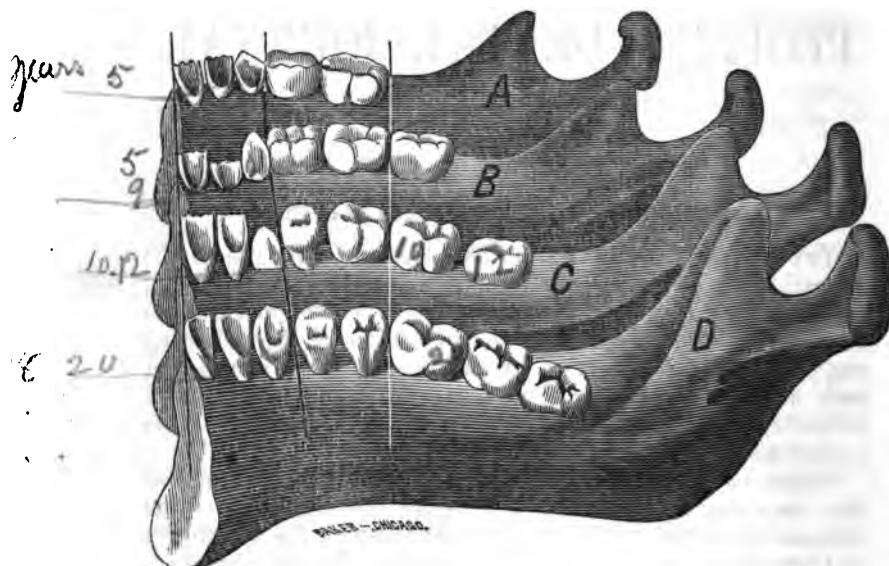
**Temporary and Permanent Teeth.**

THE PEOPLE'S DENTAL JOURNAL having for its object the education of the people on all subjects pertaining to the teeth, so far as they may be made productive of benefit and interest to its readers, we hope by the publication of the following cut, with the accompanying explanations of it, to succeed in both benefiting and interesting those who may be desirous of informing themselves of the order in which the changes in the teeth take place at different periods of life.

Whilst we desire to so interest our readers in this matter that they may become familiar with the characteristics of the different classes of teeth, and the time at which the temporary and permanent are erupted or cut, and that at which the shedding of the temporary teeth takes place, we particularly wish to correct the erroneous opinion almost universally entertained by the masses of the people that children have two entire sets of double teeth; or, in other words, that for every permanent molar tooth erupted there must have been a temporary tooth shed.

No rule can be laid down, from which there will not be occasional, or perhaps frequent deviations; as the constitutional health of the child undoubtedly varies somewhat the period at which the teeth make their appearance; but they are usually erupted about as follows: The central incisors or first front teeth at an age of from five to eight months; the lateral incisors, or second front teeth, at from seven to ten months; the first molars, or double teeth, at from twelve to sixteen months; the cuspidati, or eye (or stomach) teeth at from fourteen to twenty months; and the second molars, at from twenty to thirty-six months.

As the cut represents but one-half of the lower jaw, we shall only speak of the teeth belonging to this section, as the reader will of course know that that which will apply to one side of the mouth will apply to the other; and the same may be said of one jaw in relation to the other, except that the teeth of the lower, usually appear, are shed, and replaced by the permanent organs, somewhat in advance of those of the upper.



[Right half of lower jaw, inside view.]

To consider, then, one-half of the lower jaw at the age of from three to five years, when the set of temporary teeth is complete, as shown in section A of the cut, there will be observed five teeth, known as follows, describing from the front of the mouth towards the back: Two incisors, (one central and one lateral); one cupid, or canine; and two molars. This completes the entire set of temporary teeth—twenty in all, and ten in each jaw.

Section B represents the one-half of a jaw of a child at from five to nine years of age, a glance at which will show, directly back of the white line, which line constitutes the posterior boundary of the space occupied by the temporary teeth, that another tooth has been erupted. This is the first *permanent molar* tooth, frequently called the first large double tooth, and is never replaced by another natural tooth, as many suppose. The eruption of this tooth, is, in about a year, suc-

ceeded by the shedding and replacement of the incisors, that of the central occurring about from five to seven months in advance of that of the lateral.

Section C represents the number, nature, and arrangement of the teeth of a child of ten or twelve years old, when in addition to the changes already explained as having taken place, the second permanent molar tooth has been erupted, the temporary cuspid, or stomach tooth, has been succeeded by the permanent cuspid, and the first temporary molar, or double tooth, by the first bicuspid or *small* double tooth.

Section D of the cut represents a jaw when the temporary teeth have all been shed and the permanent teeth fully developed and in their proper positions. In this it will be noticed that the second bicuspid or small double tooth is in the position formerly occupied by the second temporary molar, and that there has been cut a third molar tooth. This is the *dens sapientiae*, usually called the wisdom tooth, which may be expected at any time after the age of eighteen years. The exact time of its appearance is very uncertain. In some cases they have been observed as early as sixteen and a half years (we have seen one case of this kind), while in others they have not been erupted before the age of forty or even fifty, but such extreme instances are exceedingly rare.

It may be asked how it happens that there are not as many temporary as permanent teeth. This is a question of importance, and we desire to so explain it that it may be perfectly plain to all, and especially to parents or those who may have the care of children. For this purpose let us again refer to the cut, directing especial attention to sections A and D. Upon examination, it will be seen that section A contains but five teeth, whilst section D has eight, and that section A is but little more than half as long as section D. At the age of seven, shown in section B, the jaw has developed sufficiently to accommodate another tooth. At the age of about twelve it has grown still more, so that it now accommodates the second permanent molar, while in section D, the jaw has attained its full size. We are thus particular to make our readers familiar with this subject, knowing that so many children's permanent molar teeth are allowed to be lost from the fact that parents imagine that they need not necessarily be attended to as they are the first teeth, not knowing that they are also permanent. Nothing is more frequent in a dental office than for children to be brought with these teeth aching, and upon being told that they are permanent teeth, express their surprise, saying: "Why, doctor, impossible; I *know* there never was a tooth

shed there." "Very true," replies the dentist, "but they are permanent, nevertheless." "Then children do not have two entire sets of teeth?" "Certainly not, all teeth appearing back of five on each side of the jaw, are permanent."

By again referring to the cut, it will be seen that the permanent molar teeth are all back of that portion of the jaw occupied by the temporary molars, and that the temporary molars have been replaced by teeth much smaller—the bicuspids. The reader will perhaps be not a little surprised to know that even some who call themselves dentists, are shamefully ignorant in regard to the nature of these teeth. We have known of those who have extracted them, saying that they were the first teeth, and would as a matter of course be replaced.

A.

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## **Familiar Conversations on the Teeth.**

BY A. HILL, D. D. S.

### CHAPTER I.

A. Is there not a vast amount of suffering and discomfort connected with the decay and loss of the dental organs in the human subject?

B. Most assuredly. The teeth were evidently designed to fulfil a most important office in the animal economy. And if that purpose or function fails, by reason of disease or otherwise, the consequences are often of the gravest character.

A. Adapting your lessons to my non-professional circumstances, will you explain to me some of the most obvious indications of the Creator, in furnishing mankind with such a class of organs, and indicating as plainly as may be, their appropriate office or function?

B. This I will gladly attempt, if you will but attentively follow me in the pages which succeed.

*Mastication* is the *first* grand office of the teeth, and is evidently the commencement of a series of operations in the animal system, that follow each other in natural and easy succession, through the whole range of physical and mental phenomena. In the process of *digestion*, the teeth are the first and most important organs that are brought into play. Their duty is a *specific* one, which, if it be not accomplished, or but imperfectly done, injury to the general system is a necessary and legitimate consequence. The healthy condition of the stomach, in a greater degree than is generally supposed, is dependant upon the action of the dental organs, as the *com-*

mencement of the process of digestion. There is, moreover, an intimate relation subsisting between the stomach and the teeth; and so important is this relation, that the premature destruction of the teeth is almost certain to involve the stomach in difficulty. And as the stomach is the grand laboratory of the system, it is of the first importance that it should maintain its functions unimpaired.

A. In what particular does the human stomach resemble a workshop or laboratory?

B. I will endeavor to make this plain, by giving you a more particular description of the stomach, and its relation to other points of the human system.

A. This is what I desire. Dentists so frequently speak of the stomach, and its relation to the teeth, and of the intimate sympathy which connects the different organs of the system together, that I am quite puzzled to understand them.

B. I am happy to respond to the spirit of inquiry which prompts you to ask these questions, and as far as circumstances will admit, I will endeavor to explain the subject. When the food is introduced into the mouth in its crude state, and is going through the process of mastication, it is moistened and saturated with the *saliva*. This saliva is discharged into the mouth more freely from the act of cutting and grinding the food with the teeth. It comes from several little organs called glands, that open their ducts into the mouth and pour forth a fluid, which, in a healthy state, is bland and genial, and perfectly adapted to prepare the food for swallowing, which, in technical language, is the act of *deglutition*. Food is the natural and appropriate stimulus of the salivary glands.

In the act of swallowing, the food next passes into the stomach. In appearance, this organ strongly resembles an old-fashioned bagpipe, differing in its capacity and dimensions in different individuals. This I call the grand laboratory of the system, for here, the food, mingling with the *gastric-juice*, is dissolved and prepared to furnish nutriment and support to every part of the entire body, and thus to keep in perpetual activity the whole complicated organism.

A. But pray, what have the teeth to do with all this business? And how do they affect the operations of the stomach?

B. Your question is important, and you will indulge me in great simplicity of language, if I attempt to illustrate it by comparison.

Let us look at this entire process, under the figure of a *grist mill*, upon which a large section of country is dependant for the grinding of their grain.

To make flour, crude grain is thrown into a receptacle, called a "hopper;" thence falling between two stones, properly adjusted, it is cracked and broken in pieces. It now passes through a second "hopper," where it is finely ground. From thence it is carried to the "bolting-machine," where it is separated from the "bran," and the pure meal is ready for use. Now, let us call the *mouth* the first "hopper," if you please—the stomach the second "hopper," and the bowels the "bolting-machine." The teeth cracks the corn in the mouth, it is then sent to the stomach, where it is softened and moulded into a homogeneous mass; from thence it passes into the bowels, where it is bolted, the finer particles suited for nutrition are taken up by ten thousand little vessels, called "*lacteals*," and carried into the circulation, and go to manufacture healthy blood, while the "bran" or refuse is carried away by waste-gates for that purpose. Now let us suppose, there are no teeth to crack the food, or that they are in such a diseased condition as to do this quite imperfectly, can you not see that the stomach is compelled to do what the teeth were intended to perform? And that while thus compelled to perform a double function, is much more likely to become disordered, and consequently, that the entire system may become deranged thereby? If the harmony be thus interrupted, and the entire process fails from defective mastication, who can calculate the fearful consequences that may ensue?

The neighbors, who have sent their grain to the mill, now call for their respective "grists." But because the process in the *first* "hopper" was defective, the mill is out of order, and no good flour is made. Thus, the *heart*, the *lungs*, the *liver*, the *spleen*, the *kidneys*, etc., send in for their appropriate nutriment, but the mill is deranged, and they are either deprived of their respective elements, or obliged to take up with crudities, which derange their delicate processes, and engender disease. And this failure of the organs to eliminate the appropriate nutriment for each separate part, results in a permanent derangement of the entire series of organs dependant upon them. Indeed, it is absolutely impossible to estimate the amount of injury to the system occasioned by imperfect *mastication*. And thus it is, that the teeth assume an importance with the serious and thoughtful, which the careless multitude fail to appreciate.

A. Then, if I understand you, there is danger of forcing too much labor upon the stomach, and that in consequence it may become diseased?

B. Yes, there is *great* danger. A stomach treated in this way for a considerable length of time, must inevitably suffer.

But it is possible that some other organ may be the first to indicate serious and painful disturbance. And, furthermore, the food thus thrown into the stomach failing of digestion, is in turn thrown into the intestines, and from its many vicious particles and crudities, may engender *colics* of the most painful kind; and if carried into the circulation, will give rise to *rheums, eruptions, etc. etc.*

A. Well, I confess I never saw the matter in this light before; and now I understand that caution so frequently given by physicians, not to "overload the stomach."

B. True, and its importance will further appear, when you consider that law of our nature, by which any organ, long held to its utmost tension, loses its power altogether.

A. But is there not another way in which the system may become diseased from continued neglect of the teeth?

B. Yes, there are several ways in which the morbid effects of diseased teeth and gums may destroy the harmony, mar the beauty, and inflict lasting injury upon the human constitution.

The system is often so nicely balanced between health and disease, that an apparently trifling circumstance may suffice to turn the scale. And there are times when the seeds of disease seem to remain latent for awhile, and may be developed by the slightest cause. A feather's weight will turn the scale when in equipoise—and so a single spark may kindle the most destructive fire, or explode a magazine.

Where there is much vigor of constitution, the efforts of the system may be for a long time successful in throwing off disease. But there are many cases where the utmost carefulness and attention are requisite to maintain even life itself, to say nothing of comfortable health.

A. My own case is an illustration of your remarks. Were I less careful in my habits of diet, exercise, sleeping, etc., I could not expect to live long. But by very strict attention to these particulars, I manage to enjoy a tolerable degree of health.

B. Now you will be prepared to appreciate what I have to tell you with respect to the *law of morbid sympathy*. Let us suppose that you inherit a constitutional predisposition to some disease—say insanity, disease of the spine, dyspepsia, or consumption. Now, by great care and attention to the circumstances which most influence your health, you may escape them all, and live to a good old age. But you are careless instead, and neglect the only means that can preserve your health—the frail structure of your teeth is broken down, their premature decay gives unmistakable signs of some radical defect, and

you are still indifferent about the whole matter. You allow *salivary calculus* or "tartar" to encase your teeth, and irritate your gums. The glands of the mouth and throat soon become diseased—your breath is foetid—your saliva corrupt and unhealthy—your teeth are sore, and you cannot masticate your food, but simply mumble it in your mouth, where it minglest with that corrupt saliva, which, instead of being bland and limpid, is *acrid* and *viscous*, it is carried thence into the stomach, where it minglest with the *gastric-juice*, tending to vitiate the whole process of digestion. And, in addition to the burden thus inflicted upon the stomach in consequence of not having the corn cracked in the "*first hopper*," you throw into this organ all the elements of disease, and it will be marvelous if confirmed dyspepsia is not the result. Or, should your stomach be strong and the *lungs* weak, then consumption may develop itself. Or, the function of the *liver* become disturbed, and introduce to you a horrid train of *bilious* troubles. Or, yet again, the *kidneys*, by an effort at vicarious action in throwing off disease, may become most seriously involved. Lastly, the *heart*, always in closest sympathy with these organs, may disturb you by its frightful palpitations.

A. But pray how could it affect my *lungs*, if I was so fortunate as to escape its ravages in my stomach, liver, kidneys, heart, etc.?

B. I will tell you. Every time you breathe, you inhale this *poisonous effluvia* from the teeth and glands of your mouth directly into the lungs, and this frail structure cannot withstand its influence; and this *virus* is more or less malignant as the case is more or less aggravated. And if your constitutional predisposition to pulmonary complaint is strong, then *tubercular phthisis* is imminent.

A. But it never appeared to me that such a little matter could produce such stupendous results.

B. Very likely—the means appear to you inadequate to such an end. But pray how is it that you take the *measles*, *whooping-cough* and *small-pox*, by just inhaling the breath of an individual affected with them?

A. Well, I must admit that you reason with some degree of plausibility; but how can diseased teeth produce *insanity*, or any other brain or spinal complaint?

B. By the well known law of morbid sympathy. But in answering this question, allow me the Yankee privilege of asking another. How is it, that by a slight wound upon the foot, or the constant irritation of a nerve, the patient dies of *tetanus*

or "*lock-jaw?*" Or, how is it that a slight wound inflicted by a rabid animal produces *hydrophobia*?

The truth is, the teeth are not isolated organs, as many people seem to suppose. But they have an intimate and vital connexion with the whole nervous system, and when the sentient extremities of the nerves are exposed to irritation, whether by wounds in the flesh, or by caries of the teeth, there is a reaction upon the *nervous centres* (the brain and spinal marrow), and insanity, inflammation of the brain, or paralysis, is a frequent sequence of such a condition of the dental nerves.

Look into that mouth where the teeth are completely denuded by caries, where the remaining particles of food are not washed off from one month's end to another, and where a dozen delicate branches of nerve are fretted and irritated, not only by the presence of such irritants, but by exposure to atmospheric air, hot and cold drinks, etc., etc. See those gums swollen and gorged with blood, and *broken tumors* discharging ulcerated matter in the mouth, and what wonder if they complain of *headache*, *earache*, and a thousand other aches! Really, the only wonder is that they live at all.

A. But what do you mean by the "law of morbid sympathy," as you call it?

B. I mean that sympathetic connexion which subsists between one organ and another, in a state of disease. You know how it is if a particle of snuff lodges upon the lining membrane of the nose, the whole respiratory apparatus is soon thrown into a violent spasm, which we call *sneezing*.

So a deranged or impeded digestion produces pressure upon the brain and violent headaches. Sometimes it is accompanied with great prostration of the animal spirits, lassitude, languor, etc. This action of one organ upon another, either in close contact or remote from each other, is called "*sympathy*."

A. I should like to know how the teeth are connected with the other organs of the system: they seem to me to have very little to do with the soft parts.

B. They are connected by means of the nerves, a branch of which extends to every one of the teeth. The "*superior maxillary*" nerve, so called, or one of its deep-seated branches, connect the teeth with the great "*sympathetic nerve*." This nerve connects them with *every* vital organ in the system, and like a great vibrating chord, responds to the slightest touch. Indeed, so powerful is this sympathetic action, under certain circumstances, that the *eye* and the *ear*, as well as *taste* and *smell*, develop it in a powerful manner.

A. I remember now, that on a certain occasion, my physician ordered a dose of medicine, on taking which, my stomach commenced heaving, and I found it a very difficult matter even to swallow the potion. This, then, was sympathy.

B. Precisely so. And if you have any desire to experiment further, you may just strike the inside of your elbow, by which operation you will compress the "*ulnar nerve*," and experience a sharp, thrilling sensation in the end of your little finger.

You must be familiar with the fact, that the sight of blood or ghastly wounds often produce faintness in the beholder.

Sea-sickness is quite contagious through the operation of the same law. One can scarcely resist joining in laughter when one hears a hearty burst from another party, even though the party laughing may be out of sight. These facts, among a multitude of cases which might be mentioned, will serve to illustrate the grand idea without further detail.

A. If these facts, which you here mention, prove that remote organs are connected by the law of sympathy, and exert a powerful influence upon each other, both in health and disease, I can now comprehend why it is, that dentists, who make the study and treatment of the teeth a *speciality*, attach so much importance to the dental organs, as related to the animal economy.

B. If *these* facts could be well understood by the public, our noble profession would at once be redeemed from its relatively inferior position, and assume its legitimate place in public estimation among the "*learned professions*."

The views above presented are by no means novel or original. With due modesty we simply claim originality in the *method* of their presentation.

Many years ago, that celebrated physiologist, Dr. John Hunter, said: "The preservation of the teeth is of the utmost importance, not only as organs useful to the body, but on account of other parts with which they are connected. For disease of the teeth is apt to produce disease of the neighboring parts, frequently of very serious consequence."

Dr. Rush, the great American physician, in speaking of the teeth, says: "I am disposed to believe they are often unsuspected causes of general, and particularly of *nervous* diseases." And he further observes: "That it is not necessary that they should be attended with pain, in order to produce disease, for *splinters*, *tumors*, and other irritants, often bring on disease and death, when they give no pain, and are the *unsuspected cause* of them."

A. As you have succeeded in exciting my curiosity, will you be so kind as to name some other diseases which may be developed by dental irritation?

B. This I will do most cheerfully. A constitution predisposed to "*osteo-sarcomatous*" and *cancerous* tumors, preternatural and spongy gums, *fungus* and *cartilaginous* growths in the mouth, may, and doubtless often do, claim a diseased denture as the cause. Also *ozæna*, a painful and peculiarly unpleasant disease, *neuralgia*, *hemicrania*, *epilepsy*, *mania*, *deafness*, *blindness*, etc., etc.

A. Stop, Stop! "Behold how great a matter a little fire kindleth."

B. Yes, indeed! And your apt quotation from Scripture reminds me of another passage which covers this whole theory. It is that beautiful allusion of St. Paul to the science of physiology, when he says:

"If one member suffers, all the members suffer."

And as I have quoted Paul, I may as well quote St. James, who says:

"A large ship is turned by a very small helm."

In thousands of cases, the fearful train is already set, and a single spark is all that is required to produce the most painful results.

Were it necessary, we could pile author upon author, quotation upon quotation, until many volumes were filled with the sad proofs of our statements; for there is scarcely a disease to which *infancy* is subject, that may not be developed, or materially aggravated by dentition.

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### **The Care of Fillings.**

Will the reader allow a little circumlocution; for a fact stated without a reason, and without being understood, is a fact stated to be forgotten.

Very many persons, if not the majority of those who value their teeth, and mean to take the proper steps for their preservation, suppose that when they have been to the dentist and had their mouths put in order, their work is done until the time comes round for the periodical examination, and that the responsibility of any possible failure is entirely with the dentist. This is a mistake, for when the teeth have been properly filled and the entire mouth got into a sound and healthy condition, *then* comes the responsibility upon the patient of keeping it so. But how is this to be done? is asked. Well, let us go back a

little and inquire into the "rationale" of the decay of the teeth, and the object to be accomplished by filling them. First, then, the decay of the tooth is caused by the action of some acid upon the limy portion of it; almost any acid has some effect upon this structure, though different acids act with different degrees of intensity, and it is proper to say here, that lemon juice and tartaric acid which are so frequently used, are among the most destructive agents to the teeth of any that can be taken into the mouth without injuring the lips and tongue. But to return to the subject: this contact of acid with the tooth gradually decomposes it, and at last we find a cavity of greater or less extent as the result of it. What now? Well, it must be filled. How? First, by removing all of this decayed matter till we come to that part of the tooth that is sound and unaffected by the decay; next, by shaping the cavity so as to retain the filling as securely as possible; then by packing in and rendering as nearly solid as may be the gold or other material for filling; and lastly, by filing this filling down perfectly level with the edges of the cavity, and polishing it as completely as circumstances will allow. What have we then? Simply an indestructible substance, or nearly so, replacing the decayed portion of the tooth; protecting the spot it covers, and nothing more. But, it is asked, if this is true, will not the tooth go on to decay again? Certainly it will, if the same causes are still allowed to act upon it which originally produced the decay.

Now it scarcely need be said that if the teeth could be kept perfectly clean, and free from contact with all extraneous matters, neither acids nor any other substances would have any opportunity to act upon them, inasmuch as there would be none present in the mouth; hence it follows, that the nearer the teeth are kept to perfect cleanliness, the greater will be their freedom from decay, and although we must eat, and must, from various causes, have more or less of that which is deleterious to the teeth, often in the mouth; still, by taking pains to thoroughly cleanse the teeth every time that food or other matter is taken into the mouth, which is, or may become injurious, we can go very far towards obtaining immunity from the decay of these organs. Thus it is seen how we may, in a great measure, prevent "the continued action of the same causes which originally produced the decay;" and we at once see that the responsibility of the patient in keeping the edges of the fillings which he causes to be inserted (and consequently the whole of it) clean, and free from all foreign substances, is quite equal to that of the dentist; for, let his work be ever so well done, if the patient fails in his duty, the operations will as surely fail, in time, as that decay goes on in the mouth.

**Artificial Teeth.**

In the January number of the JOURNAL, under this heading, we referred to the various bases or plates upon which artificial teeth were mounted. We now propose to set forth the most approved methods of adjusting the plates to the mouth.

The first step to be taken is to prepare the mouth for the plate. Upon this subject there have been many conflicting opinions and much said.

Without taxing our readers with a review of these discussions, we will state the conclusions arrived at by the patient investigation and long experience of the best practitioners in the country.

First. In preparing the mouth: well arranged, natural teeth, healthy in the root, and sound in the crown, should not be extracted to give room for artificial ones; for a dentist, thoroughly versed in his profession, can fill up the vacant places with artificial teeth, so lifelike in size, shape and color, as to almost challenge detection. Nor should a natural tooth be extracted simply because it may have a cavity in the crown. If the tooth be healthy otherwise, and the decay has not reached the nerve, it should be properly filled, for then it would be a far better tooth than any dentist could possibly put in its place. On the other hand, every tooth that is dead, or diseased to such an extent that it cannot be restored to a healthy condition by proper treatment, and every root, except in rare cases, should be extracted.

This step having been taken, some two or three weeks should elapse for the inflammation to leave the gums; when a temporary set of teeth may be inserted and worn with comfort. In cases where the teeth have caused little or no inflammation of the gums, the teeth may be inserted immediately.

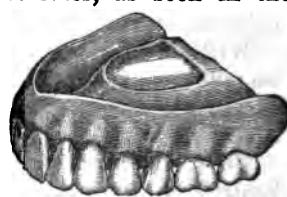
During the first ten or twelve months, the alveolar ridge undergoes a marked change, viz.: the thin bony walls which surround the roots of the teeth absorb about one-fourth the length, while the remainder of the socket fills up with a bony deposit, leaving a smooth, even ridge, at which time a new impression should be taken and a permanent set adjusted.

The teeth having been extracted and the inflammation left the gums, as before stated, the next step is to take a correct impression of the mouth. This is done either with softened wax or plaster of paris. Except in peculiar cases, wax is discarded, as a far more accurate impression can be obtained with plaster.

From an impression thus procured a plaster model is ob-

tained, and on that the plate is made to fit perfectly, which, when transferred to the mouth, cannot fail to fit accurately, as the model is its fac-simile.

The plate for the upper jaw is made to stay up by atmospheric pressure or suction. This power is materially increased by means of a vacuum or chamber formed in the centre of the plate, occupying about one-fourth of its surface. This chamber may be formed with sharp or distinct lines, as seen in the following cut, or simply raised in the centre, gradually sloping off on all sides. Each of these chambers has advantage over the other in special cases. The general result of both, however, is the same, viz.: a vacuum is formed, from which the patient can exhaust the air, causing the plate to adhere with a force equal to 15 pounds to the square inch. As a general thing, there is no suction to the lower plate: it simply sets on the ridge, held down by its own weight.



We now come to the most important and most difficult point in the construction of an artificial denture, viz., the arrangement of the teeth upon the plate. There are many dentists in the country, and some who have gained notoriety as dental writers, who claim that the insertion of an artificial denture is purely mechanical. Against this position we enter our most decided protest. *Art*, as well as mechanism, is required in adjusting the teeth.

The following extract from the editor of the *Dental Examiner* is so to the point, and so fully meets our views, that we give it entire:

"Where in the whole round of the professions do we find one that embraces more within its sphere than dentistry? It not only includes a knowledge of the natural sciences, but also a taste for the *artistic*, the true and the beautiful,—that which is allied to sculpture and painting, giving the creations of expression, intelligence. No block of marble in the hands of the sculptor was ever more subject to his control than are the varied expressions of the mouth and its surroundings subject to the controlling power of the dental art. How easy a matter it is for the dentist, from a want of appreciation of the artistic, to destroy all harmony of the features by inserting a faulty denture, which makes the very mouth a libel upon its possessor."

Judging from the great number of dental abortions which we constantly see, not only in the drawing-room, but also in the public car, we are forced to believe that we have in our pro-

fession a great many more dental *artisans* than artists. Webster says that an *artist* is "one who professes and practises one of the liberal arts, in which science and taste preside over the manual execution," while an *artisan* is one who only "follows mechanically the rules of his handicraft or art." That science and taste do not always preside over the mechanical execution of artificial dentures may often be seen by the great want of adaptation which they frequently have to the complexion and to the form and expression of the features of the wearer. Many dentists have a favorite *form, size, and shape* of tooth which they prefer to all others. Some have a passion for large teeth; others for small, delicate, effeminate ones. Some "want the whitest teeth," and use them indiscriminately, regardless whether the patient be a blonde or a brunette. It is the fashion with many to observe a stiff mathematical precision in the teeth, giving them an artificial appearance which is noticeable to the most superficial observer. Teeth set upon the plate in this manner are better adapted for the show-case than they are for the mouth, although to the dental *artisan* they may look beautiful and seem faultless.

Shades of complexion and expression of features vary as do the sands of the sea-shore, yet each individual has a principle of harmony pervading and governing his entire being. Thus, we never find red hair associated with a dark complexion, neither do we find pearly white teeth; but the color of the hair, eyes and complexion, the expression of features, and in fact the whole build and formation of body, are in perfect harmony with the shade, form and size of the teeth. Long and narrow teeth are not usually found with round, broad faces. The predominating forces in the system, which give rise to these physical characteristics, are denominated *temperaments*.

As these temperaments change with age, so does also the expression of the teeth. It would be bad taste in a dentist to insert in the mouth of a lady of fifty such teeth as becomes a miss of eighteen. In old persons, the shade and appearance of the teeth are in perfect keeping with the changes that time has wrought in the features of the face.

When the natural teeth are closely examined, we never find them set in the arch with mechanical exactness, but they always present a graceful irregularity. This fact should always be kept in mind when arranging the teeth upon the plate.

Strict adherence to nature is the foundation of artistic dentistry. No set of rules can be given for the selection, arrangement and adaptation of artificial teeth that will apply to every case. Close observation, a careful study of nature, particularly

of the temperaments, and a well-applied experience, can only make one proficient in this interesting department of our profession."

To preserve this harmony should be the aim of every dentist, and he who fails to do it has missed his calling.

For a long time we have been urging one of the most extensive tooth manufacturers in the world to prepare moulds, and furnish us with teeth of such size, shape and color as will enable us more perfectly to imitate nature. The reply has been—"Dentists generally will not order such teeth, and it is too expensive to prepare the moulds for the few who would appreciate them."

This desired end has now been obtained.

This subject will be continued in the next number of the JOURNAL.

C.

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### **Children Not to be Deceived.**

#### **A WORD WITH PARENTS.**

In these days when the decay of the teeth is so common, for the treatment of which children have so frequently to be taken to the dentist, it is highly important that they should be treated in a manner not only free from all deception, but such as to give them the assurance that whatever may be done will be for their own good. They should be treated kindly and dealt with honestly, and their confidence should never be destroyed or shaken by a practice of deception upon them, either on the part of their parents or the dentist.

Whilst we know that in many cases much of the suffering attending dental operations is *imaginary*, we also know—and it seems to us that all sensible persons must know—that living tissues cannot be cut or teeth extracted (no matter how quickly the operation is performed) without producing more or less pain; and for parents or dentists to tell children anything to the contrary, is simply an untruth.

We are led to these remarks from the fact that it is no uncommon thing for parents to induce their children to go to the dentist in order to have dental operations performed, and for dentists to get them to submit, by telling them that it will not hurt.

This deception is wrong in principle, and is bad policy as an expedient. It is precisely the way to destroy a child's confidence both in the parent and dentist; for, suppose the confiding little patient does believe these earnest assurances that "it will

not hurt a single bit to have the ugly old tooth taken out," or some other operation performed, and is thus induced to go to a dentist and finds that it *does hurt*; what is the effect produced on the child? Why, simply this: it feels that it has been deceived—imposed upon. Its once unsuspecting confidence has been shaken or destroyed. There is created a feeling of distrust; it may be, of positive dislike towards the dentist. Often it causes a feeling of dread and even life-long horror at the thought of all dentists and dental operations. In a large practice, extending over a period of seventeen years, during which time we have had to do with thousands of children, we have never known any good to result from such deception. Who can question that such fraud has a deleterious influence upon the minds of children?

Cases of such deception have often occurred, and we could give many instances, but one will suffice. Several years ago, a child about four years old was taken to a dentist for the purpose (as it was told) of having a single tooth extracted, with the assurance on the part of the parent that "it would not hurt;" but when there, and the mouth once open, he not only *did hurt* in taking the tooth out, but he took out two others that hurt equally as bad. This created such a feeling of repugnance and terror, that the child could not again for many years be induced to go near any one whom she knew to be a dentist, or even to pass by a dentist's office.

When it became necessary to have her teeth examined again, no persuasion on the part of the parent could avail to satisfy the little one that any other dentist, if he should get her mouth open, would not take out all the remaining teeth. It was not until after a long effort, at the request of her mother, that we, in the character of a friend, succeeded in gaining her confidence so that she allowed us to operate for her without the fear of being deceived. This was done by telling her the plain truth in a kind, frank and encouraging manner, and she now submits to having whatever done to her teeth we think desirable, cheerfully, and with ordinary patience and fortitude.

All deceptions in such cases are unnecessary. There is a much better way and a much safer policy. It is, if you talk with them at all about such matters, to tell the truth, at once, kindly and faithfully, but not exaggeratedly. Establish their confidence in the dentist,—in his truthfulness and in his kindness. Tell them that though the drawing of a tooth, or any dental operation, may hurt, yet it is necessary and for their good. Make them to understand that the dentist will perform it expeditiously and with the least possible pain. Appeal to their

fortitude—their heroism. Tell them they must bear it like young soldiers or philosophers, and not shrink from a little necessary pain. What ingenuous boy or girl would not love you and confide in the dentist all the more, if, instead of deceiving them, you would tell them the whole truth—appeal to their sense of honor and duty, and make them feel that you expect them not to care for a little pain, which will soon be over, even if it does hurt.

Try this method with children, and see if motives drawn from their *manly pride* or their *lady-like character* will not go farther than the usual subterfuges of deception and sugar plums.

We frequently have parents bringing their children to us with aching teeth to have them extracted. Sometimes they are the first permanent molars, with long and firm roots. At other times, they are the temporary teeth before their fangs have been absorbed, which, if extracted, must produce pain: it cannot be otherwise; and the parents know it; yet, with a nod and a sly wink at us, they will say, "Come, now, have it out, the doctor won't hurt you." To such remarks our reply now is, "Such teeth cannot be taken out without hurting, and if the child is to be deceived, we prefer not to be a party to the deception."

By this we do not wish to be understood as saying that there are no cases in which teeth can be extracted when the pain will be *very slight*; so much so, that it is not necessary to say much to the child about it. Such is the case when the roots of the temporary teeth have been absorbed by the coming forward of the permanent teeth, so that those to be extracted are very loose and but slightly attached to the gums. Such teeth are frequently taken out with the fingers whilst talking with the child, and perhaps making some laughing remark calculated to please its childish fancy; when the taking out of the tooth will be looked upon as a good joke, and with surprise and pleasure the child will exclaim: "Why, mamma, the doctor took out my tooth and it didn't hurt a bit." Such cases, however, should not be confounded with those first mentioned.

There is another consideration which should induce parents to avoid everything like deception in this matter. It is one which applies as forcibly to the proper management of children when we would induce them to take medicine or perform any other unpleasant duty, as to the way of dealing with them in dental operations. It is, that every victory thus gained over their childish fear or reluctance to endure a little pain, or suffer a little discomfort, is a real victory for life. Such victories, even in little things, give force of character to the child, and help to educate it for the real duties of coming life, which is

one great battle made up of victories or defeats. And why should not these occasions be made instrumental in teaching children, even young children, instead of deceit, impatience, self-indulgence and cowardice, the principles and virtues of truthfulness, patience, self-denial and courage—that they may be the better prepared to face difficulties, and go through the world with comfort, usefulness and honor?

A.

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THE following letter from an esteemed professional friend in New York, gives dental quacks some hard hits, but none too hard. It shows up in a correct light those who, by flaming advertisements of their work and other devices, manage to get into their offices those who are not educated to a proper appreciation of the teeth, or the wide difference between good and poor dental operations, and when they have them there, spoil their teeth as the safest way of picking the victim's pockets. Poor dentistry is dear at any price, and with men who do this kind of work, and thus libel and bring reproach upon a useful profession, we have but little patience. They are worthy of the fate met by the herd of swine we read of—at the end of their violent run down a steep place.

We see cases every day of patients who have been to this class of dentists, thinking that they would save money by so doing; but they not only find, upon inquiry, that they have paid as much or more than a good dentist would have charged them, but that they have paid it for little else than the luxury of being imposed upon. This is what we call "paying dear for a whistle." Reader, read the letter.

A.

NEW YORK, January 19th, 1863.

DEAR DOCTOR: A short time since I received a copy of the first number of your quarterly, and am very much pleased indeed, to see a journal of the kind put forth. It *must* be the means of doing much good, as it is what an intelligent public requires, and will appreciate.

I am glad to see contained in it, articles denouncing those advertising impostors, who have recourse to printers' ink, as the ten cent side show has to the enchanting and intensely thrilling strains, produced by the greasy organ-grinder, for the

purpose of attracting a crowd, many of whom are induced to go in, because it costs so little ; believing to be true the showman's stereotyped and glowing assertion, that his are the most wonderful, and indeed the only curiosities of the kind ever placed on exhibition. They come out victims, feeling that the showman has the best of the transaction—he possesses the paltry dime.

That class of persons above-mentioned, who call themselves dentists, and resort to advertising a list of figures, as prices for which they will perform first-class operations, etc., are men of much the same stamp, except that the latter are the greater miscreants of the two ; because they not only swindle their victims out of their money, but also, in many cases, do them constitutional injuries, which, however, may not be discovered at once, but they are almost sure to be developed sooner or later. It is patronizing and encouraging this class of dentists that gives people so poor an opinion of dental operations.

I have seen notices of this nature from some of your Chicago dentists, one of which particularly attracted my attention, as the advertiser published a list of figures, asserting them to be "Eastern prices," for which he was prepared to do work in the most approved style, etc. Now, being one of the Eastern dentists, I very naturally know what Eastern fees are; and I have no hesitancy in saying, that the fees of good Eastern practitioners are not represented in that list, by any means. It is true, there are quacks and impostors here, who swindle people by such devices. It is *swindling*, because their victims do not get value received, at even the low figures which they advertise, by the payment of which—by the way—they seldom escape; particularly, if they are persons who appear to be able to pay more ; as in such cases he will tell them, that he has taken extraordinary pains (which the patient will, soon after, wish he had kept) and performed a much better operation than he could afford at those figures, and the consequence is, he probably succeeds in leeching them out of perhaps more than a first-class operator would have charged for an operation, which would not have endangered the patient's *mouth* to that process, in the more general acceptation of the term.

This is not the only device resorted to here to attract attention. Some have a set of artificial teeth, in a glass case at the door, which is made to open and shut by concealed clockwork, to the astonishment of a certain class, who unfortunately do not know that it is an "open and shut" game, and are inveigled into the operating room, to learn by experience, that it is a game which has but its *beginning* in the glass case at the door.

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The fees of good practitioners here are no lower than in Chicago, as the individual referred to would have your public to believe. On the other hand, I think I may safely say, that, in Western cities, fees are lower than here. That you may satisfy yourself, however, in the matter, I will say, that here, respectable dentists have for ordinary gold stoppings from five to ten dollars, for larger or compound from ten to twenty, and other operations in proportion. Now, these are "Eastern prices" of *respectable* practitioners; the former charges being the most usual. There are but a few here who have the highest fees—those who have a wealthy class of patients, who care not how much their dental operations cost them, so long as they can rely on their being performed in the very best possible manner.

To patients who are in humble circumstances in life, a liberal deduction is always made.

I hope the time is not far distant, when people will understand that that class of men, whom we designate as "quacks," are libels on the profession without having to be taught by experience; and if you think that the publication of this would have the effect of undeceiving even one of your citizens, it is at your service.

In consideration of the enclosed dollar, please place my name on your list of subscribers; and believe me to be, dear Doctor,  
yours very sincerely,

D\*\*\*.

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### Our Advertisements.

We wish to say to our readers, that we advertise none but first-class business establishments. As such, we particularly direct your attention to those which appear in the present number. The parties are every way responsible, and worthy your confidence.

C.

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For want of room, several articles from contributors, intended for this number, are crowded out.

We hope no one who receives this Journal will fail to read the interesting article from Dr. Hill; and those who do read it, will be glad to know that he has promised an article for each number of the JOURNAL.

A.

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THE  
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JULY, 1863.

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Fruits:

WHAT THEY CONTAIN, AND WHAT THEY ARE FOR.

The luxuriance of summer brings to us a great variety of fruits, which, like all other kinds of food, have intimate relations with the health of the entire body, and especially of the teeth.

From all time, artists and other lovers of beauty have paid attention to the colors of ripe fruits, but it is only in later years that chemists and microscopists have paid attention to their structure, composition and uses. An examination of the internal structure of fruits shows us some of the most beautiful objects in nature. That which appears to the naked eye as a solid, homogeneous mass, filling the interior of an apple, pear, or watermelon, expands under the microscope into a vast storehouse, piled to the roof with the most exquisite little crystal globes, some perfectly clear and brilliant like the purest diamonds, and others flushed with rosy or amethystine stains. Each of these globes is a sealed flask full of the juice of the fruit.

Every agreeable fruit contains three principal elements, upon the proper combination of which its attractiveness depends. These three are an acid, a sugar, and a flavoring material.

The acids contained in fruits are numerous, but the principal are the citric, malic, and tartaric acids.

The citric acid is that which exists in the orange, lemon, cranberry, raspberry, strawberry, red currant, and many others. When extracted, it is a transparent crystalline solid, intensely sour, and without a particle of flavor. It is much used by physicians to make sour drinks for the sick.

The malic acid is that which is contained in the apple and pear family. The tartaric acid is the sour principle in grapes.

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After the wine is pressed out, a portion of the tartaric acid unites with the potash in the grape, and settles to the bottom of the cask in a solid form called tartar. From this the tartaric acid of commerce is extracted, and used both in medicine and cookery. It closely resembles citric acid, but is more harsh to the taste.

These acids are capable, by long continued application, of dissolving the solid substance of the teeth, and were there no provision of nature against it, we should pay for our enjoyment of fruit by the inevitable loss of these organs. It is the first faint traces of this corroding action which causes the teeth to feel rough and "set on edge" when very sour substances are eaten. For the same reason, a long continued excess in eating sour fruit causes tenderness of the teeth. There is a curious provision of nature, however, by which healthy constitutions protect the teeth from this result.

Ripe fruits contain not only acids, but also a small portion of potash. When taken into the stomach, the acid, being a vegetable compound, is digested and destroyed, and rendered no longer an acid but nutritive material. The potash, on the contrary, being a mineral substance, cannot be thus destroyed, but is absorbed into the blood and circulates to every part of the system, rendering the blood alkaline. The alkalis of the blood being thus abundantly furnished to the salivary glands, ensure a constant alkaline character to the saliva, which flows into the mouth and instantly neutralizes any acid which the fruit may have left upon the teeth. This singular provision of nature, however, is perfect only in persons of good digestion. If the stomach is feeble, or the indulgence in fruit very excessive, the acids of the fruit are not destroyed: they pass into the intestines and are absorbed into the blood, diminishing its alkaline character, and depriving the saliva of its neutralizing elements. In such cases, the fruits exert a directly injurious effect upon the teeth. Hence, one reason why a disordered stomach is apt to be accompanied by decay of the teeth.

The second class of ingredients in fruits consists of the sugars. Of these there are a variety, mostly belonging to the grape sugar variety. They are nutritious and agreeable, and directly promotive of good health, and do not differ materially in their effects from cane sugar.

The most interesting topic connected with fruits is the study of their flavors. Every plump, ruddy-cheeked berry is a chemical laboratory, in which little retorts of purest crystal and amethyst distil their delicate ethers, on the same principle that the professor does in his laboratory.

All the finest and most delicate flavors of fruits consist of ethers closely similar in nature to the ether and chloroform used by dentists and surgeons in surgical operations. These vegetable ethers not only resemble that used in surgery in their composition and nature, but also in their effects on the system. The flavor of the pear, the pineapple, or the strawberry, if concentrated in large quantities, is capable of producing the profound sleep of chloroform, so that any surgical operation could be performed without the patient's knowledge. It might be even given to such excess as to cause a tranquil death; and, although to

"Die of a rose in aromatic pain,"

is a poetic fiction, a man might die of the aroma of a strawberry without a particle of pain. In small quantities, these ethers are gentle stimulants, slightly exhilarating the feelings of the patient and soothing some varieties of pain. As inhaled from or eaten with the fruit, the stimulant effect is scarcely perceptible, only serving to produce a delightful flavor and to gently excite to action the nerves of the digestive system.

Ethers are produced by chemists in the following manner: an acid and some alcohol are placed together in a glass retort, and by the action of one upon the other, the ether is produced and distilled over in a fragrant vapor. The process of the ether manufacture in the fruit is the same in principle, only differing in the apparatus. The little crystal cells or globes inside the fruit are filled with a solution of acid and sugar. Between the cells are innumerable spaces through which the air circulates. The oxygen of the air, acting upon the sugar of the cells, converts very minute portions of it into alcohol. The acid of the cell instantly converts the alcohol into ether, which, being very volatile, exhales as a delicate fragrance into the air.

The fragrance of many fruits can be produced in the laboratory without a particle of the fruit itself being used in the operation. This manufacture is carried on by distilling various kinds of acids with alcohol and similar compounds. A great variety of ethers can thus be made, each having its own peculiar flavor, and the manufacture of them has already become of considerable commercial importance. So perfect are some of the articles, that confectioners prefer them to the natural product for flavoring confectionery, the flavor made by art being actually more fruity than the fruit itself.

The following are among the articles most commonly manufactured:

Butyric ether—flavor of pineapples. Made by the action of butyric acid upon alcohol.

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Acetate of amyl—flavor of pears. An ether made by the action of vinegar upon an organic product.

Valerianate of amyl—flavor of apples. An ether made by the action of valerianic acid. This is manufactured and sold for the purpose of producing an apple flavor in whisky vinegar. The vinegar thus “doctored” is sold for genuine cider vinegar.

Cenanic ether—flavor of grapes. An ether made by the action of cenanic acid upon alcohol. It is used very extensively in one form or another in giving a grape flavor to artificial wines and brandies.

By various mixtures of these flavors, good imitations of strawberries, raspberries, etc., are produced. Nearly all the syrups used at second-rate soda fountains are flavored with these artificial ethers, and do not contain a drop of the juice of the fruit which they represent.

Owing to the fact that the natural fruits generally contain delicate mixtures of several ethers at once, it is seldom possible to make a perfectly exact imitation of the flavor; hence, nearly all these spurious syrups and wines can be detected by a practiced palate.

Another flavoring material found in many fruits consists of the essential or volatile oils, such as the oil of lemon, the oil of orange peel, and many others. This class of flavors is less delicate and more pungent to the taste than the former. They are prepared for separate use by distillation from the fruit.

The fruits of the peach and cherry family contain a peculiar flavor, which, when examined, is found to be nothing else than the deadly poison, prussic acid. It exists, however, in such minute quantities, that it has no evil effect. Its action upon the system is directly the opposite of the ethers, they being stimulants, while the prussic acid is a sedative, and promotes a languid, soft pulse, and a slow beating of the heart.

Practically, then, fruits are highly beneficial to persons of good digestion. In proper quantities they furnish alkalies to the blood and saliva, which protect the teeth from the action of the acids. These alkalies, also, are natural stimulants to the liver, so that the steady use of fruits tends powerfully to prevent summer bilious attacks. The summer fruits, therefore, are, to a certain extent, the natural antidotes to summer diseases. Fragments of fruit skins and pulp sometimes lodge between the teeth, and, acting as a sponge to absorb and retain acids, keep these corroding juices in contact a long time with the enamel, ultimately penetrating it and causing decay. To obviate this evil, one only needs to remove all such particles after eating with the tooth brush or pick.

Finally, let all eat with reasonable freedom the ripe fruits and enjoy the delicious flavors which the Maker of all things has prepared for the promotion of health and enjoyment. A sound instinct points out this course to us, and the teachings of science confirm its mandates.

A.

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## *Familiar Conversations on the Teeth.*

BY A. HILL, D. D. S.

### CHAPTER II.

A. What do you mean by "*first dentition?*"

B. I mean simply the development of the infant or "*milk teeth.*"

A. At what period of life does this generally take place?

B. It generally commences about the sixth or seventh month, and occupies from two to three years. The following table may serve to give you a tolerably correct idea of the different periods of this development: From six to eight months, the four small "*incisors,*" or front teeth; from eight to ten months, the four lateral "*incisors;*" from ten to twelve months, the four "*canines,*" or "*eye-teeth;*" from fifteen to twenty months, the first four "*molars,*" or grinding teeth; and from twenty to thirty-six months, the second four "*molars.*"

A. Is there anything peculiar or remarkable about the eruption of these teeth?

B. Yes, there is. The system undergoes a marked change about this period, and a curious provision is made for this change.

A. What are the peculiar features of the change to which you refer? Please explain.

B. In the first place, it is a change preparatory to *new habits* in the child, and *new functions* in the digestive organs. Whenever nature furnishes us with a new class of organs, she always has something for those organs to do. Hitherto, the child has received its nourishment from the breast of its mother; but now, by the eruption of these teeth, she gives the parent a gentle hint, that it is time to think about weaning the little nursling. It says to the parent, "a change of diet has become necessary."

A. But do you suppose that there is a corresponding change in the *digestive* and *nutritive* systems at this period?

B. Most certainly. Nature never would furnish the child with such a class of organs, unless the circumstances of the

system required them, any more than she would furnish them with limbs, where there is no locomotion.

A. Is there anything peculiar in the teeth or jaw at this period, which can throw any light on the nature of the food which the child requires?

B. Some indication may be inferred from the frailness of the teeth, and the limited motions of the jaw in eating. These seem to point to that kind of food which is light and easy of digestion, part fluid and part solid, and very little of the animal kind. The absence of the molar—or *grinding-teeth*—and an incapacity to perform the *lateral* or *rotary* motion of the under jaw, shows that *tearing* or *grinding* the food is not then necessary. It is but the beginning of a change, which is to be radical and complete.

A. Are there any diseases which are peculiar to this stage of childhood?

B. Yes. But I would have you understand, that it is only when nature is impeded or interfered with in some of her operations that disease ever manifests itself. Where this development goes on without hindrance, it is purely a natural and healthy process. But alas for us! we pass through scarcely any marked stage of our existence without more or less difficulty. When the progress of *teething* is delayed by some obstacle, the excitation which augments the vitality of the salivary glands and increases their activity, becomes an irritation sufficiently great to inflame them. Then the mouth becomes hot and dry. Thirst increases—the throat and brain sympathizes—the countenance becomes red, swollen and anxious; in a word, we observe all the symptoms of decided *fever*. Soon, *ptyalism* takes place, and the mouth, hitherto so dry, becomes suddenly inundated with an abundant flow of saliva.

Ordinarily, this salivation checks itself in a few days, but sometimes it gives rise to lymphatic—salivary—engorgement, and may induce rapid *marasmus*, or a wasting away of the flesh and the life of the child.

Again, *itching* of the gums, more or less intense, accompanies this development. When slight, there is nothing to fear. But when carried to an extreme degree, the child becomes restless and sleepless, and the irritation may issue in convulsions.

A. This reminds me that I have often seen children thrust their fingers, or anything else they could get hold of, into their mouths, and fret, and rub, and bite, and slaver immoderately, and now I perceive the reason.

B. Precisely so. And to the intelligent physician or dentist these signs are exceedingly significant. And there is

scarcely any period in the child's history when skilful attention is more important.

A. I have noticed also, that many people put *corals*—*ivory* and *hardwood*—into the hands of their children, to bite in such circumstances. What is your opinion concerning the use of such things?

B. It would seem, from the study of these and analogous cases, that this is one of nature's methods of relief. Puppies, while passing through the same process, are everlastingly *gnawing* and *biting* something. And in watching them closely, I have noticed that this *excessive* tendency ceases after the eruption of their permanent teeth. I should observe, however, that opinions differ as to the value or benefit of using these *hard* substances; some supposing that they tend to excite inflammatory and painful swelling of the gums, rendering them callous, and presenting greater obstacles to dentition. It is my opinion, however, that some elastic substance like *rubber* may be used to advantage.

A. Are there no other diseases that are justly chargeable to dentition?

B. Yes, many—both *idiopathic* and *symptomatic*—but our limited space will not admit of more extended remarks under this head. A few *practical* observations will conclude what we have to say upon the subject.

To those parents who may have children manifesting symptoms like the foregoing, we would say, *let them not be neglected*. A little help, judiciously afforded, may save the life of your darling. If there be an intelligent dental practitioner in your neighborhood, *by all means* let him see your child. Timely lancing of the gums will give signal relief. Put away *anodynes* as you would *poison* from your child. Keep the *head cool* and *bowels free*. Give as little medicine as possible—*good nursing* and *prompt attention* will greatly assist in overcoming the difficulty. "*Elixirs*"—"Dover's-powders"—"*soothing-syrups*," and all such nostrums, work incalculable mischief. A *warm bath*—*warm clothing*, and a mild diet, will sometimes greatly assist to restore the patient. Be not hasty to check a movement of the bowels. The greatest danger is a determination of the disease to the brain. And an overdose of anodyne, by checking the action of the bowels suddenly, may eventuate in *dropsy of the brain*.

#### SECOND DENTITION.

We have arrived at a point where the first or temporary teeth will become loose, fall out, and give place to the second or permanent teeth. This is called "*second dentition*."

- A. At what age does this usually take place ?  
 B. It generally commences about the seventh year.  
 A. What is the number of teeth in the permanent set ?  
 B. Thirty-two.  
 A. How can this number be accommodated, unless there be a corresponding development of the jaw to afford them room ?

B. As there is twelve more teeth in number, and of larger size, there must needs be a development of the bones of the face—an expansion of the jaw and alveolar-ridge, and a general enlargement of the parts, to allow of this change.

A. What circumstances do you deem most important, as connected with the development of these teeth ?

B. That they should appear at the proper period—in their proper position, and in their natural order.

A premature or tardy development indicates a defect in the working of the physical machinery, and the teeth which are evolved under such circumstances are apt to be defective in their structure, and subject to premature decay. Secondly—irregularity of the teeth produces much inconvenience and no little deformity ; and, without special care and attention, will continue to annoy the person through life. And, moreover, these irregularities and malformations, if suffered to continue, are not unfrequently transmitted to children as *congenital* deformities ; for it not unfrequently happens, that what is the result of accident or circumstance at first in one generation, becomes a constitutional peculiarity in the next, and may thus be transmitted through countless generations.

A. Thank you for this hint, as it will materially assist me in solving a difficult question in *ethnology*, with respect to *family* and *national* peculiarities.

B. It is a key which, if skilfully used, will unlock many strange and mysterious secrets that have long perplexed the minds of men. But the mere mention of the fact in connection with the *teeth* and *face* should certainly serve to invest it with remarkable interest.

A. I frankly confess that in a physiological point of view it must have an extensive bearing. And I can now understand how it is possible that the peculiarly *flat nose* and thick lips, by which the African race are distinguished, as well as the high cheek-bones of the North American Indian, and other peculiarities of different races of men, might have been *purely accidental* at first, and at length become the distinguishing characteristics of whole *tribes* or *races* of men.

B. I am glad you are so quick to see the force of these observations and anticipate their importance in a physiological

way. I can point you to instances where the malformation of the jaw, in consequence of the irregular development of the permanent teeth in the parent, has given rise to a constitutional peculiarity of a similar character in the child. And this is one reason why I wish to impress upon your mind the importance of the strictest attention during this transition period.

A. But I had always supposed that nature, unaided by human skill, had sufficient resources to meet and overcome all such difficulties.

B. Ah, that indeed, if she were not amazingly crippled in her operations. There would be no need of the *physician* or *dentist* if every embarrassment to nature's own workings were removed out of the way. But such is not the fact. And now *he* is the *best* physician who understands her operations *best*, and who can assist her *most*. They greatly mistake who practice on any other principle. For be it remembered, that the greatest physician in the world, is *nature's truest assistant*. Medicine ceases to be of use when it ceases to be the *handmaid of nature*.

A. But to return to the teeth once more. From whence originate these *permanent* teeth?

B. M. Blandin, a very philosophical writer, supposes the tooth to "be the production of the internal tegumentary system, as true appendages of the digestive membrane." The rudimentary pulps of these teeth are contained in a small sack, situated near the roots of the temporary teeth. This pouch, or follicle, is tied to the neighboring parts by a bundle of vessels and nerves, and the part secreted, or the product, is the tooth, properly so called.

A. But I had supposed the temporary teeth had no roots, for when I have seen them extracted, the roots are certainly gone.

B. This is a very common mistake. These "*milk-teeth*" do *have* roots. But when they are supplanted in the order of nature, these roots are absorbed by "*nature's little journey-men*," and the teeth becoming loose, fall out for the want of support. And seeing no roots, you have concluded they never had any.

A. But what do you mean by "*nature's little journey-men*?"

B. I mean a class of little vessels called *absorbents*. These are very numerous throughout every part of the system. Their office is to take up, and convey away, any superfluous matter. Hence, when the temporary teeth have accomplished their purpose, and the time has come for them to be supplanted by

another, and more durable set, these little vessels become very active and take away the roots of the first teeth, particle by particle, until they completely lose their support, and fall out, or else may be easily removed with the fingers or a simple thread. And because under such circumstances no root appears, many people suppose they are always destitute of roots.

A. Truly the operations of nature are most beautiful, and instructing. But is not the assistance of the dental surgeon sometimes requisite in such cases?

B. Not when nature is unimpeded. But it so happens that there is sometimes an obstacle in her way; and this must be overcome by such assistance as the case demands, else deformity and much inconvenience may be the consequence.

A. What kind of "deformity" or "inconvenience" do you allude to?

B. I will endeavor to explain. You will bear in mind that I told you, that the permanent teeth were larger than the temporary ones, and also more in number, consequently more room is required for them. Now, a corresponding enlargement, or expansion of the jaw is necessary. And, if there be no local or constitutional difficulty, *such an enlargement will take place*. And in such cases, the expansion of the jaw, or alveolar-ridge, as it is technically called, will be in exact proportion to the development of the teeth. But should it be otherwise, the teeth will be *crowded and irregular*—some passing within and some without the line of the arch, and thus, the whole countenance, and entire expression and appearance of the individuals will be marred and injured. His articulation will be indistinct and difficult—his enunciation of language hard and uncouth—and this difficulty of speech, will give rise to habits of face and expression which will continue while the person lives.

A. Your remarks on this part of the subject remind me of what I have often witnessed in public speakers. Some of them are so hard in their manners, and their efforts at speaking so laborious, as to make a listener fairly *sweat*, while in sympathy with them. And I have found myself utterly unable to account for the difficulty. In many cases, it can neither be attributed to a lack of genius or education.

B. I am happy in calling your attention to this subject, and I fearlessly challenge you to find one among them whose dental organs are perfect in their development. And I venture to say, that if you will tax your memory, you will scarcely call to your recollection a single instance of a *celebrated orator* with a contracted mouth and irregular or imperfect development of the dental arch.

A. I distinctly remember that the large, and firmly expanded mouth of Henry Clay, of Kentucky, has been a subject of frequent remark. And many amusing anecdotes are related of his peculiar expression of countenance, connected with the broad expansion of his mouth, when engaged in debate.

B. There can be no question but that Mr. Clay, the world-renowned orator, was much indebted to his dental formation, and the peculiar play of his features, for his great success in oratory. The playful smile, the biting sarcasm—the supercilious curl of the lip—the silver accents of his voice—the delightful enunciation—the elegant diction, all—all are much more dependent on a perfect and harmonious arrangement of the dental organs, than a superficial observer would suppose.

A. Volumes have been written upon the subject of elocution, and the best method of regulating the voice. Professorships have been established in our academies and colleges for the instruction of our youth, but it never occurred to me before, that a skilful and scientific dentist is really more important than either, in preparing the way for the teaching of this most desirable accomplishment.

B. The education of the vocal organs is of vast importance. Vocalization, both with respect to *language* and *song*, is dependant, in a great degree, on the perfection of the dental organs. And yet parents, who expend hundreds of dollars in giving their daughters a fine *musical* education, or in preparing their sons for the profession of *law* or *theology*, grudgingly withhold, or reluctantly pay, the insignificant fee of the dentist, which is absolutely essential to achieve the end they desire.

A. This subject, certainly, is interesting, even if it fail of the importance which you seem to attach to it. And I find it very suggestive of curious and interesting questions. I have often observed that fine singers fail to win the applause which they otherwise merit, simply because of *defective elocution*. And in the *clear* and *distinct* utterance of their words, they fail.

Now, in *ballad* singers, I regard it essential, that not only the sounds, but that *every word* should be so clearly enunciated, as to impress the sentiment of the ballad upon the mind of the listener. And I now perceive the cause of so many failures.

B. There is, unquestionably, a wonderful charm in simple music. But in certain forms of music, like the *ballad*, or in sacred music, the *chant*, for instance, *words* are *indispensable*. And the more distinct the utterance, the more powerful the effect upon the listener. The case is the same, whether in

speech or in song. "And how shall he that heareth say *amen*," if the words are not understood? And how shall a man speak clearly and distinctly, whose dental organs are all irregular and defective?

A. I am extremely obliged to you for these valuable and interesting thoughts. They are valuable, because they are useful. And I can but think how ignorant are the great mass of the community, with respect to the important duties of your profession.

B. And equally ignorant are many, who attempt to practice it. I say *attempt* to practice it, for they do nothing but mutilate and spoil nature's most beautiful productions. Nor am I at all surprised that the opinion should become prevalent, that the duties of the dentist are degrading and insignificant. For if men, whose highest ambition seems to be graduated by the attainments of the "*blacksmith* and the *tinker*" in the practice of dentistry, are to mould the public mind in regard to the duties appropriate to our profession, this may well be. But we think you cannot fail to see, that even in the science of dental surgery, there is

"Ample scope, and verge enough,"

for the largest intellect.

A. But, pray sir, would you have me understand that the resources of your art are adequate to correct the serious evils and disabilities of which you speak?

B. Most assuredly. Precisely here, the most glorious achievements of our profession have been accomplished. Malformations the most remarkable—irregularities the most striking, and defects of the most glaring kind, fall within the scope of our practice, and are found amenable to proper treatment.

A. As this matter is of much importance to the public, will you please be more specific, as to the forms of irregularity and malarrangement to which you refer, as being within the scope of successful treatment.

B. First, then, I would mention, a *crowded* denture. Where the teeth are pressed for want of room.

And irregularities consequent upon such a state of things.

Second—What is called in common parlance, "*jimber-jaw*." This is where the under jaw protrudes beyond the upper and changes the whole cast of the countenance, giving to the physiognomy a false expression, and the individual a sad deformity.

Third—Cases where the *upper front* teeth, instead of standing perpendicular to the line of the face, project forward and

droop down upon the under lip, standing far out, and giving an unsightly appearance to the whole expression of the face.

Others again, both upper and under teeth, project much like the teeth of the *simia* tribe, to which the *ape* and the *monkey* belong.

Fourth—Cases where the jaw and teeth resemble the *rodentia* class of animals, to which class the *rat* and *squirrel* belong. Such cases are comparatively common. But we may well regard it as a very serious calamity to those who are compelled to wear through life a *snivelled-up* face of this description. And the more especially so, as we remember the fact, that we are in the constant habit of estimating character by the *expression of the face*. Indeed, so common is this practice with us, that we do it *instinctively* as it were, and we like, or dislike, as the face is pleasing or otherwise.

A. I find myself more deeply interested as we proceed in these conversations, and am really surprised to find so intimate a connection between your profession and the *health, happiness, comfort, and personal beauty* of mankind. You have succeeded in investing it with an interest which I little thought it deserved. But I am curious to know if you can really *correct* evils of such magnitude as you have here described.

B. *Most assuredly we can*, if an opportunity is afforded, and a reward commensurate with the services rendered is proffered to us. Let it be *most distinctly* and *emphatically* understood that in such cases as we have named, the resources of our profession are ample and adequate, when skilfully applied, to correct and restore the *most unsightly and irregular* formation of the teeth and jaws.

A. At what age can these operations be undertaken, with the greatest promise of success?

B. Any time from eight to twenty years. But perhaps the most propitious period for such operations is from the age of ten years, to sixteen or eighteen. During the process of *ossification*, or hardening of the bones, and the gradual development of the system, the parts yield more easily, and can be moulded to the required form with far more certainty and convenience than at a later period.

A. Can this be accomplished after the age of twenty-one years?

B. Yes—but with much more difficulty. That is to say, *much* can be accomplished in this direction after this period, *but not all* that might have been done, if they had been taken “when the bones were in their gristle.”

A. It seems to me that the subject of correcting *irregulari-*

*ties and deformities* of the teeth and face is one of great importance, and should be known to the public. For I am sure there are thousands of parents, who, having means abundant at their command, would be willing to pay large sums, if *such* payments could command *such* services, and confer such unmistakable blessings upon their children. But they generally suppose, that *extracting, filling and cleaning*, together with inserting artificial teeth, embraces the whole resources of your profession.

B. Nor am I surprised that they should entertain those views, when there are so many who emblazon their names to the world as "*Dentists*," do so much, by their actions, to confirm such opinions. Nevertheless, we do not exaggerate the value of these high professional services when we say, that they are among the noblest and most beneficent achievements of physiological science, and that they crown the profession of surgery with as pure a radiance as the successful amputation of a limb, or the removal of a tumor.

No one can estimate the priceless benefits conferred upon a young gentleman, or lady, by the restoration of the normal expression of the face, and the beautiful and harmonious play of their features, subsequent to such operations.

A. I am fast coming to the conclusion, that no *pearls* are so beautiful—no ornaments of jewelry so desirable, as the brilliant pearls which nature sets between the well moulded lips of a young lady or gentleman, relieved by that delicate carmine, which tints the lip and gum, while a sweet smile plays over the face.

B. If we could but awaken public attention to the facts and principles herein referred to, one great object, and I might say, the *principal* object in the publication of the "People's Dental Journal" would be fully realized. For I take it, that the great design in the publication of this Journal is, the diffusion of *important* information, in an *attractive* and *popular* form, upon the subject of dental science and practice. And how far it shall be successful, will depend greatly upon the interest which *you* and others may manifest in the enterprise.

Let me commend it to your confidence and patronage, as the *only* publication of the kind with which I am acquainted.

Hoping to resume our conversations in the next number, and to perpetuate the interest you have hitherto expressed, I take my leave for the present.

Norwalk, Ct., 14th May, 1868.

## Dental Education.

BY WM. A. PEASE.

If a foreigner, while traveling through this country from east to west, and from north to south, should obtain at the different stations the local papers and read the dental cards, he would form a very unfavorable opinion of American dentistry. On the supposition that a man advertises his highest skill, that he presses upon the public attention the wares or whatever he is the most anxious to dispose of, what yields him the greatest profit, and for which there is the greatest demand, he would think that America is the paradise of dental mechanics, that dentistry, as a profession, has scarcely an existence here, and that, after a certain period of life, artificial teeth are the rule and the natural the exception. If to verify this supposition, to discover whether this most anomalous condition does really exist, he should look around him at the faces on the cars, on the streets and at the public assemblies, a very little knowledge of anatomy, physiognomy and the distinguishing characteristics of the different races would convince him that his worst fears were really true. For how, else, could he reconcile the unnatural expression of the faces he would see around him, especially of the women, with the known configuration and expression of face of the Anglo-Saxons, as seen in England, or the Teutons in Germany. How could he account for the faded appearance; the sunken, hollow, flabby and wrinkled cheeks; the sharp and expressionless mouth; the prominent or protruding chin; the short lips, and that general appearance of premature decay that indicate the loss of the natural teeth? This would be confirmed by the first glance at the open mouth, by the preternaturally small, white and artificially arranged teeth; unlike the infinite variety of the natural organs, which were arranged by nature, and conform in color and expression to the age and temperament.

Whatever might be his conclusions as to the cause of this condition; whether climatic or degeneration of the race, it is unnecessary to inquire here. It does not, however, arise from any one cause; in part from social habits and imperfect alimentation; but principally, from an unfortunate and erroneous education upon dental subjects. This leads to the inquiry—What has been the education of the people upon dental subjects; who have been their instructors, and whether they were honorable men and competent for the task?

To fully answer these inquiries would open a field of dis-

cussion too wide for these pages and this number. The instructors can only be indicated, who are swarming in every city and village, plying their vocation, manufacturing a public opinion that reflects little credit upon dentistry. Here is a fair specimen of the instruction given by these instructors of to-day:

“DR. ——, DENTIST. ARTIFICIAL TEETH INSERTED IN THE various styles in common use—but special attention is called to the new method of using VULCANIZED RUBBER instead of gold. It has now been thoroughly tested, and is confidently offered to the public as cheap and durable, neat and cleanly, light and comfortable, and every way a desirable style of work. Those who need artificial teeth are invited to try it.”

A stranger to the mixed practice of such men, after reading their cards and hearing them talk, would suppose that these doctor-mechanics were simply manufacturers of artificial sets of teeth. He would wonder why their names were prefixed by the word “Doctor,” so evidently out of place. It is true some of these cards contain, evidently parenthetically, a line like the following: “The teeth are carefully treated and plugged.” This, compared with the spirit of the rest of the card; its confident assertion, enthusiastic description and minute detail, leaves the impression on the reader that their treatment and fillings are of little value in the estimation of the advertisers; and this impression is confirmed, if he knows the wonderful facility their plugs have of coming out.

Accustomed as the public is to exaggeration in advertising; it, nevertheless, supposes that a neighboring professional man would prize his reputation and word, and dislike to advertise in a public journal what was obviously beyond his knowledge and might be incorrect—that he would reflect; “I do not know, and neither does any man, the average duration of sets of teeth on rubber; whether the same as those on gold, longer or shorter; because it has not yet been used extensively so long as the average duration of sets mounted upon that metal; but I do know that many sets have broken after very little use.”

I have selected the preceding card as a fair type of those usually found in the public journals; and have thus, partially, analyzed it, in order to show what kind of instructors the public has and the nature of the instruction it receives; and on what slight foundations such confident assertions are based. They are in spirit and manner true tradesmen’s cards. For mechanics, they are, perhaps, as unobjectionable as the average of their advertisements; but there is a difference between thus selling wares, that may be of use, and selling services, that, by reason of incompetence, may result in injured health and shortened life. Similar cards are to be found in nearly all of the

public journals of the country. They exaggerate the value of artificial teeth, and by implication, at least, depreciate the value of the natural ones and the efficiency of the means used by dentists for their preservation. Akin to this manner of advertising, is the loose way of conversation and representation common to many manufacturers of artificial teeth. They in some way convey the idea that a set of teeth will last for life; be a permanent fixture. Hence, many people, knowing that mechanics' fillings will have to be frequently replaced, and that eventually artificial teeth will be necessary, neglect to have the decay arrested, thinking they will thereby save the expense and trouble of the operation; and that the loss of their teeth a few years earlier will be of small moment. This opinion lessens the confidence they have in dentistry; for they soon learn, that the artificial teeth, on which they have been led to place so much reliance, are, often, inefficient masticators, liable to accidents, and that repairs are frequent and expensive; even, if they are not obliged to have their sets replaced as they feared they would their fillings. To the public, which is but slightly acquainted with what daily passes in a dental office, it may seem singular that so much importance is attached to dental cards or the conversations in the office. But how else is the public learned; what other instructors has it? Professional dentists advertise but little, and when they do, they are satisfied with a simple statement of their residence and business. In the office they give the patient a simple, candid statement of what he wants and what he may expect; believing that their word is sufficient, they promise nothing—warrant nothing. Thus the influence of a dentist, here and there, is not so great and widespread as that of the neighboring mechanics, who advertise extensively; sometimes personally solicit business from door to door, or village to village,—and by this means keep the great mass of the people ignorant of how much better they might be served by dentists and how unnecessary it is to lose their teeth.

Dayton, Ohio.

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### *Emeritus Professor.*

We are glad to see that Dr. G. D. White has been elected to this honorable position in the Pennsylvania College of Dental Surgery. We know of no one in the profession possessed of more good, practical sense, with a faculty to turn it to good account in teaching, than Doctor White. A.

### **Advice to those who wear Artificial Teeth.**

The varied scenes and trials through which every one must pass before they reach that point when an artificial set of teeth is necessary, are not easily forgotten. They remember how (in many cases by neglect) one tooth after another decayed, till the nerve became exposed and ulcers formed, producing the most excruciating pain; but now the last offending member has been extracted, and "my troubles are all ended. I can now have an artificial set of teeth in every way as good as natural ones." To correct some erroneous opinions on this point is the object of this article.

While we readily admit that an artificial set of teeth, properly adjusted, will answer all the purposes of good natural ones, we affirm that no dentist ever did, nor ever will, insert teeth which will answer those purposes *as well* as natural teeth.

There are many difficulties attending the wearing artificial dentures which, in the main, by patience and perseverance, may be overcome. The difficulties are these:

1st. The presence of the plate in the mouth at first, especially when the patient has been without teeth for a long time, is a source of inconvenience. A few days of patient use will remove this trouble.

2d. Many complain of the plate chafing the gums, producing soreness. This difficulty arises mainly when plates are inserted soon after the teeth are extracted; the gum heals over the sharp, bony points of the sockets; the plate pressing on the gum causes these points to cut through to the plate; in a few days these points will absorb, the gum heal up, and the plate will be worn with ease.

3d. Others complain that the plate produces an unpleasant taste in the mouth. In some cases this arises from the fact that it is made of base material; but when good material is used, such as continuous gum, gold, or vulcanite, this difficulty will not exist if the plate is kept clean. When eating, fine, starchy particles of food will adhere to the plate, especially to the inner surface; if not removed, it will soon sour, producing an unpleasant taste. The plate should be cleansed after each meal.

4th. The difficulty most complained of, especially in full sets (and *partial* sets where clasps are discarded) is the inability to use the teeth, when first inserted, in masticating food. This difficulty occurs in every case to a greater or less degree, and to overcome it, much depends upon the patience, perseverance and aptness of the wearer. To be more explicit: the upper plate,

as we stated in a former number, is held up by suction, with a force varying from eight to fifteen pounds. The main object of this suction is to keep the plate from dropping when in the act of speaking, laughing, etc.

The teeth are required to be set on the plate at an angle of from ten to twenty degrees. The force of an ordinary bite is about fifty pounds, which, if applied to the front teeth at an angle above referred to, in the same manner in which we would bite with the natural teeth, would, of course, overcome the eight or fifteen pounds atmospheric pressure, causing the plate to tip. The same is true in chewing on one side of the mouth. To remedy this difficulty, it is necessary for the patient to learn to press the food against the front teeth at the same time they are brought together, and at first to learn to chew on both sides. To so learn this process, till it becomes a habit, usually requires from two to four weeks.

C.

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We are happy to present the readers of the JOURNAL with the following rare gem from the casket of one of our most gifted poets, G. W. Pettes, of Boston. It ought to attract attention, especially from the ladies. We have never seen a dental subject handled with so much classic beauty, and put in numbers so full of sweet rhythm and sparkling thought.

A.

### *An Incident.*

"To cast into my teeth. ——————"

SHAKESPEARE.

My friend, who speaks as Hazlitt wrote,  
And I, who study men of note,  
In earnest, argumentive talk,  
To twilight's hour prolonged our walk.

The Poet's passion, Sculptor's dream;  
Yes, beauteous woman was our theme.

He told of Helen, pale and fair,  
And I, of Ada's raven hair;

Of Kate, whose teeth so radiant white,  
Glistened like pearls in morning light—

Though jet or gold, each chose the curls,  
We both paid homage to the pearls;

When suddenly before us stood,  
Grace, in the pride of maidenhood.

We puzzled rules of etiquette,  
When at the angle sharp we met;

*Electricity in the Human Organism.*

I almost caught her in embrace;  
I could not choose but see her face.

Oh! she was lovely as a day  
Of beauty in unclouded May.

We looked a moment in the eyes,  
Which read our tribute and surprise—

And, "Pardon us, fair maid," we said,  
When laughingly she turned and fled.

Alas! that smile, which quick revealed  
All that the lips but now concealed:

Sharp points, unevenly disposed,  
On which those bright red gates had closed.

How must be mangled honeyed words,  
Which pass across that bridge of swords!

Where is the unsophistic youth,  
Would catch a Tartar with each tooth?

Oh! Grace, thy feature, form and limb,  
May all attractive prove to him;

But not for us, the buxom maid,  
Whose smile is wantonly waylaid:

Its warders should be pure and good,  
To guard its fixed or changing mood;

And where it gleams with radiance bright,  
Let them reflect its rays of light;

For vain the ruby casket's sheen,  
Unless the pearls are set therein.

***Electricity in the Human Organism.***

BY JUSTIN HAYES, M.D., CHICAGO.

The living human organism is a self-sustaining battery. Throughout the entire body dissimilar substances are in contact with each other; solids are associated with fluids, and as long as life remains, there is electric tension or play of the voltaic pile. The animal membranes and fluids are connected with nerve fibres, and constitute a most exquisite self-sustaining battery arrangement, yielding a kind of constant voltaic electricity modified by vitality.

It is a law of the voltaic circuit that no polarity can occur

unless there be some difference in the two poles. The All-wise Architect has placed in the human cranium the nicest of his material work, crowning the electro-nerve circuit at the brain positive, and the peripheric nerves of all the body and limbs the negative pole.

Electricity in the animal frame is the force by means of which all nervous action is excited ; and when the natural electric state of a nerve is modified by any cause whatever, the equilibrium is destroyed, and there results some sort of sensation or contraction, or usually both.

The sum total of the entire apparatus of human life is but a due balance of forces, and whatever conspires to disturb the equilibrium of the nervo-vital force, either from mental emotion or mechanical injury, produces a disturbance in the nerve batteries, greater or less, according to the impression made or injury sustained. With these facts before us, we have a clue to the why metallic plates of opposing chemical elements placed in the mouth, forming with the fluids and soft tissue a galvanic or voltaic circuit, sending an electric current to the surrounding nerves, changing their original normal polarity, or disturbing the beautiful equilibrium so essential to the wellbeing of the vital organs.

That this mechanical battery acts upon the living tissue of the organism, influencing more or less the true voltaic or animal electricity and life force, needs no labored argument to sustain it. An experiment with a piece of silver placed between the upper lip and teeth, brought in contact with a piece of zinc placed under the tongue, will throw light to the most incredulous brain.

The filling of teeth with metals of an opposite chemical element, produces a constant galvanic or voltaic battery in the mouth ; causing more or less disturbance in the animal electricity or nervo-vital fluid, according to the amount of material used or number of teeth filled.

Batteries placed in the mouth by unscientific operations, either in the way of fillings of an opposite chemical nature, or alloyed plates used in artificial dentures, have ordinarily to be removed. Sometimes, however, by constant trial and endurance, the injured nerves and tissue may be educated to bear the injury : as tobacco is tolerated by repeated use.

Let the scientific dentist heed the law of the voltaic circuit in his metallic work, as the scientific physician does the law of compatibles in his prescriptions, and his patient will be the more happy recipient of his noble science.

## Book Notices.

**COMPLETE RECORD OF THE SURGERY OF THE BATTLES FOUGHT NEAR VICKSBURG, DEC. 27, 28, 29 & 30, 1862.** By E. Andrews, late Surgeon of the 1st Regt. Ill. Light Artillery, and Prof. of Surgery in the Medical Department of Lind University. Chicago: Geo. H. Fergus, Book and Job Printer, No. 179 State street. 1868.

The above is the title of a very neat little pamphlet, issued by Prof. E. Andrews, of this city. When the present wicked rebellion shall have been put down, and its history written, not the least in importance will be the record of its military surgery. These statistics, if properly collected and arranged, can but add much and be of great value to the surgical literature of the medical profession. That this sad history may be made as complete as possible, the proper effort should be put forth by medical men, and the proper authorities ought to take steps to assist them in collecting and arranging these facts, so that no more of them may slip from their hands, but that they may all be made as useful as possible to the student of medicine and surgery.

This effort of Dr. Andrews is a step in the right direction, and in it, he has evinced his usual *penchant to dig* for history and statistics, and, when found, to so arrange them that they may not only be made useful to himself, but to others. A.

**SOME PLAIN FACTS REGARDING THE TEETH;** with Suggestions concerning their character, treatment during eruption, preservation and restoration to health when diseased; and their substitution by Artificial Teeth when lost. By Dr. T. B. Welch, Dentist, Winona, Minn. 1868.

We have received a small publication of twenty-two pages, with the above title, published by Dr. T. B. Welch, Dentist, of Winona, Minn., for gratuitous distribution among his patients. It is a very neatly gotten up little pamphlet, and is filled with matter intended to give the reader a tolerably good idea of the origin, formation and composition of the teeth; the period at which the temporary and permanent teeth are erupted, causes of the decay of the teeth, and the proper treatment to be adopted to restore diseased teeth and gums to a healthy condition; together with other information calculated to instruct the people in regard to the minor points of dentistry.

All such publications tend to educate the public mind to an appreciation of dental subjects, and ought to be read with interest. The more information individuals can obtain upon these subjects, the more highly will they prize their teeth, the better care will they take of them themselves, and the less liable

will they be to be "humbugged," by submitting them to the treatment of dentists not properly and thoroughly educated in the profession.

Although we cannot quite endorse all that is said on the subject of rubber as a base for artificial dentures, we would, as a whole, commend it to the careful reading of those for whom it is intended.

Having said this much in favor of this little work, another feature occurs to us which it would perhaps be as well to notice. We find numerous passages taken from the "People's Dental Journal," for which it has received no credit. Now, whilst we appreciate the compliment the Dr. pays us by so liberally quoting from our JOURNAL, and care but little about the matter personally, we do think better taste would have been exhibited, if the usual inverted commas had been inserted.

Having been acquainted with the Dr. for some years, and believing him to be a very devout man, and withal remarkably modest (?), we are forced to the conclusion that the fault must have been with the *printer's devil!* Now, really, you did not mean to let your readers think that the matter referred to was your own, *did you, "brother Welch?"*

A.

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### What They Say of Us.

In order that our friends may see how our labors are appreciated by the Dental Profession and others, we publish the following from a large file of similar letters which have been received:

SAG-HARBOR, L. I.

I am pleased to receive the January number of the PEOPLE'S DENTAL JOURNAL, and appreciate it as an evidence of the continued progress of our profession.

I have long felt the need of a medium through which we could talk to the *people* in language divested of technicalities—in the same spirit that we would advise a patient in our reception room. I cannot realize that there would be presumption in this, and that advice unasked for would be unacceptable, for I am fully assured that thousands would thank us for the warnings and for the encouragement given them to seek their dentist and to obtain relief at his hands.

You have initiated the JOURNAL: may it be successful; and to the unprofessional reader I cannot refrain from saying,— Give heed to the advice contained in its pages; be assured that "Cleanliness is next to Godliness," and consider the maxim in the constant care of the natural teeth.

W. S. E.

TAUNTON, MASS.

I am very glad to see such a work, for I think it must be of great benefit to dental patients, as well as a means of ridding the dental profession of a malignant fungus growth of impudent quacks.

I hope your Journal may be found ready at hand in the reception room of every dental office. J. T.

PITTSBURGH, PA.

Received your PEOPLE'S DENTAL JOURNAL with much pleasure. Think it is *just the thing* that is *needed*, and should be freely circulated. R. V. & S.

BROOKLYN.

I am very glad, indeed, of an opportunity of subscribing for so valuable a work as I take the PEOPLE'S DENTAL JOURNAL to be. E. C.

NYACK, N.Y.

I thank you sincerely for the specimen number of your Journal just received. I confess my selfishness, in part, in subscribing heartily for it. Every dentist—who is not a *quack*—should keep a copy of your Journal on his table for the perusal of his patients. Should he be a quack, he could do nothing, perhaps, that would more effectually expose his ignorance in the science he claims to understand so perfectly; and nothing might injure his pecuniary interests more. To such, I say, it would be worse than useless to subscribe for the PEOPLE'S DENTAL JOURNAL. G. W.

CHICAGO.

I enclose one dollar for your valuable quarterly Journal. It deserves liberal patronage, not only from our own citizens, but throughout the Northwest. W. A. B.

[From the "Dental Register of the West."]

This is a neat little Journal, gotten up, as we understand it, for the purpose of giving instruction to the people in regard to the value and the care of their teeth. This is a most laudable enterprise, one, the importance of which, we think, very few recognize, even among dentists. It is a subject upon which we have thought much, and spoken somewhat, and acted considerably for several years. It is one great instrumentality whereby the profession may be made to grow. Whether the editors intend to confine the circulation of the PEOPLE'S DENTAL JOURNAL to their own patrons, or whether they propose to furnish it to the

profession, for distribution to their patrons; we hope the latter, by all means—it strikes us that an enterprise of this kind is a grand thing. Let the articles, for the most part, be brief, comprehensive, and to the point; let them be such, principally, as would suit the people of different localities.

We presume they would furnish them in quantities to dentists, for distribution, for a trifle over the cost of publication.

We do not dictate, but only make these suggestions, hoping they may extend the enterprise. T.

Certainly, Dr. T., we like your suggestions, and shall be pleased to furnish the JOURNAL at cost, to any party that may desire them. A.

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### Our Advertisers.

We call special attention to our list of new advertisers in this number of the JOURNAL.

We wish to direct the attention of the profession to the announcements of the Ohio College of Dental Surgery and the Philadelphia Dental College. The Ohio College is an old institution, and ought to be better supported by the profession than it is. The Philadelphia College is a new school, and, although there is but one member of the faculty—Dr. J. H. McQuillen—who has had any previous experience in teaching in a Dental College, from a personal knowledge of most of the others, we have every reason to believe that it will be found equal to any institution of the kind yet established. A.

**THE NEW YORK HOME LIFE INSURANCE CO.** It is no mean mark of a man's wisdom and business capacity, that he keeps his perishable property insured, especially in our large cities and towns; but he who keeps his life insured is doubly wise. The company above named is every way worthy of confidence. H. W. Clarke, agent. Office, No. 2 Methodist Church Block.

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THE  
PEOPLE'S DENTAL JOURNAL.

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OCTOBER, 1863.

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FALSE IMPRESSIONS.

In an article published in the April No. of the JOURNAL, we sought to illustrate some of the evils resulting from deceiving children, by telling them that it would not hurt to have dental operations performed, and we endeavored also to show how much better it was to be truthful and candid with them when they were to be submitted to the dentist.

We wish now to point out some of the ways in which parents and others often enhance the suffering of children, by giving them false impressions as to the magnitude of the suffering they must experience at the hands of the dentist. Wrong impressions in regard to this matter render children, and sometimes even grown persons, so timid, that they are unwilling to submit to having the most trifling dental operation performed. But few persons have the least appreciation of the amount of trouble and discomfort that they cause by giving these impressions.

Every one who has paid any attention to the action of the human mind, or has observed its operations in everyday life, is well aware of the power of the imagination to produce or increase suffering.

The great influence that this faculty of the mind has on the bodily functions, either in the production or relief of disease, has long been recognized by medical men. Says a writer, in speaking upon this subject: "While on the one hand, the happy effects of a well-grounded confidence are daily brought under the observation of the medical practitioner in the recovery of patients under the most unfavorable circumstances; on the other, the direful consequences of this instrumentality are strongly exhibited during the prevalence of some epidemic diseases, which are known to affect individuals in proportion to the degree of apprehension that prevails; whereas medical men

and others, who under these circumstances are not so liable to be influenced by the terrors of an excited imagination, are much less likely to be affected by the disease, or, if they are attacked, the termination is favorable in a large proportion of cases. In many instances, again, and especially after accidents and operations, though the circumstances appear to be most favorable for recovery, yet, if the *morale* of the patients be so influenced as to make them apprehend an unfavorable termination, how frequently does it occur that these prognostications are verified by the result! In like manner, predictions of the occurrence of disease or death at a certain period, by the hold they obtain on the patient's imagination, occasionally bring about their own fulfilment. It is said, that in the Sandwich Islands there is a sect who assume the power of praying people to death: 'Whoever incurs their displeasure, receives notice that the homicide litany is about to commence, and such are the effects of the imagination, that the very notice is sufficient with these people to produce the effect.'

The culprit placed in the prisoner's box for trial, buoyed up with the hope that the sharp and ingenious argument of his counsel will convince the jury that he is innocent, sits with composure, and not infrequently with indifference; but when the verdict of guilty is rendered, when his last hope is gone, mark the effect often produced on his physical energies. Though a powerful man, he is at once shorn of his strength; his form trembles; and under all the dreadful ideas which an excited imagination now suggests, he is overcome, and in despair, falls prostrate at the feet of justice, as if stricken by a thunderbolt from heaven. Why this remarkable change? There is no bodily disease thus suddenly developed. The man's physical organs are all apparently as sound and healthy as they were before. It is the mind—the action of the mind upon the body which thus deranges and unnerves it.

A large portion of our happiness or misery is dependent on the workings of the imagination. This faculty may be so trained as to be a source of constant pleasure, or so directed and perverted as to make us continually miserable. It has been said that some die a thousand deaths in fearing one. So also of every pain or evil. They may be indefinitely increased by fearing them—by anticipating them—by allowing the imagination to dwell upon them, and to draw horrid pictures of suffering.

Now this is especially so in the case of those sufferings which are experienced in dental operations, and still more particularly when the patients are children. When a dental operation is to

be performed, instead of telling the patient of the pain and trouble it will prevent, the suffering that will be relieved by it, the short time it will take, and the really small amount of positive pain it will inflict (not more than is often inflicted by some trivial blow, fall, or other accident), the patient listens to over-wrought tales of others, allows his imagination to gloat over the matter, compares it to a thousand horrid things, and talks to others about it, until the imagination is stimulated to such a degree, that he suffers a thousand times more in the *anticipation* than is ever realized from the actual operations of the dentist.

It is a common practice with *most* persons, when speaking of their own cases, to use the most exaggerated statements—statements even bordering on absolute falsehood, as to the severity of the pain inflicted on them by dental operations. How often do mothers, even in the presence of their children, tell of the torture, the cruel, dreadful torture—almost as bad as death itself, if not worse—which they have had to undergo at the dentist's. Ladies will get together and become eloquent, tragically eloquent, over their terrible descriptions. They will vie with each other in telling their experience, as if each were seeking to make out the most awful case possible. They have been filed and sawed, bored, scraped, punched, their mouths have been stretched and torn, their gums lacerated and cut, their teeth and nerves torn out, their jaw bones broken, and a thousand other things have been done—some real, but more, manufactured for the occasion. They will exhaust the dictionary in looking for hard words to express the terrible sufferings endured at the hands of the dentist.

Reader, do you say that this is an overdrawn statement? Very likely, at first thought it may so seem to you, but upon reflection, I presume you may be able to recall instances where you have heard nearly the same language used; and perhaps, too, you may recollect some occasions on which your own tongue was allowed full play in describing your *fancies* in the same direction, and that, too, in the presence of children.

Now, what conclusion must a child form who hears such accounts of dental operations from time to time? What must he think when the time comes for the little patient himself to go to the dentist? What other result could be expected from all this false and foolish exaggeration, than that the child should be filled with terror at the mere thought of a dentist, or anything that he might do. Surely every one must see the exceeding folly and injurious effect of these exaggerated statements upon the young, and yet they are made almost daily by parents and

others as if unconscious of the evil they are doing, and of the unnecessary sufferings thus inflicted on children. If dentists are to be held in such horror for inflicting the little pain that is *necessary* in the discharge of their duty to their patients, how should those be regarded who cause so much *unnecessary* suffering, by indulging their dispositions in relating these over-wrought and marvelous statements?

We do not deny that there is more or less pain experienced by the patient in dental operations, nor do we wish parents or dentists to *conceal* this fact from children; on the contrary, our former article was written expressly to show that it ought not to be concealed, and that children ought never to be deceived. We do not object to their being told the truth, but to their being told *more* than the truth. There is as much injury done in such cases by exaggerating, or overstating the truth, as by denying or concealing it. To tell a child that the extracting of a tooth will give pain, is one thing, and to tell it a whole chapter of horrors, and make it feel that it is next to death, is another and a very different thing. It is no less than the difference between truth and falsehood. They do not consider what impressions they are making by the use of such language, what effect it has on the well-being of children. It is nothing less than creating the premature and morbid excitement of that power of imagination already described, and the investing of it with these frightful images of pain which we have been endeavoring to point out. "That faculty which so frequently enhances enjoyment by anticipation,

"Whose might  
Can make the desert heavenly fair,  
And fill with forms divinely bright,  
The dreary vacancy of air,"

and to which, when under proper control, the civilized world owes so large a share of its happiness, is also unfortunately instrumental in the production of much of the misery that exists, by the gloomy foreboding of expected evils, or by the ideal aggravation of present misfortunes."

Again, it is not uncommon to hear persons, in the presence of children, using harsh and censorious terms when speaking of their dentist. This is done when no disrespect or injury is intended; but still it has an injurious influence on the minds of the young. They use language of censure and condemnation, which make children think that dentists must be cruel and unfeeling men, simply because, from the very necessity of the case, some of their work cannot be well performed without giving more or less pain. Yet such language is constantly

used by parents and others, who will not hesitate to speak before children of the cruel, hard-hearted and unfeeling dentist, even when they *know* that he is one of their best friends.

These remarks are enough to indicate the way in which injury is done to the youthful mind on this important subject. It is hoped that those whose attention is thus called to it will take the hint, and be careful to correct habits which all, on reflection, must perceive to be as pernicious as they are prevalent.

A.

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The following letter, containing many excellent ideas, is from Dr. James Taylor, Professor of Institutes of Dental Science in the Ohio College of Dental Surgery:

SHERMAN HOUSE, CHICAGO, OCT. 14, 1863.

*To the Editors of the PEOPLE'S DENTAL JOURNAL:*

Since coming to your city, in looking over the *Chicago Medical Journal*, I see a piece with the caption, "A Word to Patients,—How to Treat your Doctor."

Your valuable Journal, which I have had the pleasure of perusing and placing in the hands of my patients, affords a very proper channel for a few thoughts on the subject, for the benefit of those who visit the office of a dentist.

You select your dentist for his known skill and strict integrity. Make up your mind on this point well before you give him a call. This done, you go to him for his advice, or the use of his skill. Now, first recollect that time to him, as well as every business man, is money. State your case promptly, with few words, and enter into no lengthy description of your pains and troubles. He hears them too often. Far better seat yourself in his chair, and merely answer his questions, for, in nine cases out of ten, at a glance, he knows your case far better than you do yourself. Never set up your own opinion above his. If he be the man you take him for, he has had better teachers than yourself. Your proffered advice implies a doubt of his attainments, or an egotism in your own character, either of which you would be ashamed to acknowledge. If you only want his advice, take it, and follow it. Having now used his capital for a limited time, pay him for it; for there is nothing for which he can charge you for professionally, more worthy of a fee.

If you want the use of his skill, give him a fair opportunity to exercise it aright. Avoid a fidgetty, nervous manner. Recollect that, by your firmness and nerve, you very much assist in securing a good operation. In this way you shorten the

operation, and at its close, patient and dentist will both feel far better.

You should never expect a tedious and difficult operation to be performed without some pain and inconvenience to yourself. Let this be ever so much, keep up your courage and firmness. Never hurry the operator. Rest assured that he will not labor longer on your case than he feels is necessary. If he be the man you have selected him for, he must persevere until the end is accomplished.

As an old operator, I can freely say, that I wish never to operate for any patient unless I have their fullest confidence not only that I will execute my work faithfully and well, but also, that I will do it with the least possible pain consistent with the success desired.

Let there be a perfect understanding between patient and dentist. We mean by this, the patient should feel safe in the hands of his dentist: that he is not unnecessarily holding the head too tight, or cutting away too much of the tooth, or pressing too hard on the gold, but that he is doing all this just right, and for his or her benefit. Let there be no crawling away from the hands of the operator, as if there was a desire to get out of his hands. Your head should be unreservedly placed in the hands of the dentist. The least twist or change of position in the head, forces the operator to change also his position, and this often cannot be done without great constraint and exhaustion. The least change in position of the head may obstruct the light, or overflow the cavity with saliva, or cause the instrument to slip. Every operator will tell you that his work is often spoiled in this way, and a filling half done, all lost—gold lost, and time also—the operation prolonged, and patience almost exhausted. These things occur often without any fault of the patient, but far oftener by their want of firmness.

Fully appreciate the importance of the operation, and determine that, if *not well done*, it shall *not* be your fault; but having done all you can, (and rest assured it is far more than is generally supposed,) you can, except in extreme cases, with propriety, throw all the responsibility of failure, if any, on the dentist.

In conclusion, let me say, that if you have a tooth to be extracted, make up your mind before taking the chair. It is no place to parley with a condemned organ. No amount of talk—no amount of screwing up of courage, will diminish one iota the pain of extraction. Nine-tenths of the teeth broken under the hands of good operators, are the result of the patient's uncontrollable nervousness. A firm head, placed just as the operator desires, and hands always down, will always, if at all possible, secure a quick and easy operation. JAS. TAYLOR.

**A LETTER TO THE EDITOR.**

SHERMAN HOUSE, CHICAGO, Oct. 13, 1863.

DEAR DOCTOR,

I trespass a moment to tell  
As the weather is bad, I don't feel very well;  
And to say that if I should attempt to write verse,  
You'd pronounce, with Sam Weller, the effort as "worse."  
You know the quartette, you and I, H. and B.,  
Were chatting and joking, and sipping our—tea,  
When you said, in the act of renewing my cup,  
"There's a space in my Journal for you to fill up."  
"It's of no use to talk, sir, I've waited for you,  
Subscribers are urging, 'the Journal is due.'  
But I must have some lines before going to press—  
A couple of pages will do, more or less."  
I don't know what I said, for the tea was so strong,  
That I inwardly felt I should do something wrong—  
I think that I promised—forgive me, I pray,  
That I send nothing else but this letter to-day.  
If you only knew what a night I had passed,  
How I fretted my brain about teeth—and at last,  
When I slept, you would weep for each tooth that you draw,  
If you only could see the strange sights that I saw.  
I dreamed that Macbeth, in his devilish glee,  
Played the scene of the banquet, and Banquo was—me;  
He told me to leave his respectable home,  
And he showed his great teeth in a sea of white foam.  
I perspired like a butcher—the vision was gone—  
When Richard came snarling, and swore he was born  
With "upper" and "under," all ready to bite  
Any dentist infringing his first Patent Right.  
Then Benedict entered, his face all askew,  
And I timidly asked, "What's the matter with you?"  
"I've the toothache," he growled—"I beg pardon," I said,  
And the toothache and Benedict quitted the bed.  
There came a relief to this chapter of woes,  
When the beautiful vision of Beatrice rose,  
An opal burned almost to bursting the while,  
That it vied in its light with her beautiful smile.  
But the vision departed—the dreamer awoke,  
To find that his heart and the morning had broke.  
You need not remind me of promise or vow,  
For really, dear Doctor, I can't keep them now.

## THE FIRST OR TEMPORARY TEETH.

A FEW WORDS ADDRESSED TO PARENTS.

BY J. RICHARDSON, D.D.S.

Reader, have you a little boy or girl from two to four or five years of age? If so, you will find, on looking into the mouth, that the child has, in all, twenty teeth, ten in the upper, and ten in the under jaw. These first sets of teeth are known by various names, as, *Infant*, *Milk*, *Temporary*, or *Deciduous* Teeth. You have doubtless watched the cutting of these teeth from first to last with great anxiety and concern, for their eruption embraces a period in the child's life oftentimes fraught with great danger, and nearly always with more or less derangement of the health. But now that these teeth are cut, it may be that you have entirely dismissed your concern, and imagine that there is no farther need of watchfulness or care of them,—that they are *only the first set*, and as they will, after awhile, be replaced by the permanent set, no farther attention to them is demanded of you. Now the purpose of these lines is to inform you in a matter of the first importance to your child's welfare, and to point out to you, in a plain and familiar way, the absolute necessity of constant care and watchfulness with a view to the preservation of these teeth until they shall be replaced by others.

The active service of the temporary teeth, previous to any of them being shed, embraces a period of from four to six years, during which time the child is wholly dependant upon them for the mastication of whatever food it may require for that length of time. While you doubtless recognise the importance of the care of your own teeth, you should remember that good, sound teeth are even of more importance to your little one than to yourself. Why? You have acquired your growth; your system is fully developed and matured; the vital functions are strong to resist the encroachments of disease, and the operation of causes that would scarcely induce any irregularity of health in the case of yourself, may be sufficient to destroy your child, or render it an invalid for months or years, or for life. On the other hand, the child is *developing* and *growing*, and any bad or injurious influence that is sufficient to modify or change the natural and healthy order of that development and growth, may not only enfeeble the constitution permanently, but lead, in after life, to the establishment of some of the gravest and most incurable forms of disease. The nourishment you take is designed chiefly to supply the *waste* that is going on in the system continually; but in the case of your child, not only must food be taken

to compensate for this waste, but, in addition, the *growth* of the body must be provided for in like manner.

Now, how is this development and increase of the body effected? By a process called *nutrition*. It is not thought necessary to consider here the series of vital acts engaged in the conversion of alimentary materials into the various tissues of the body, and which, in the aggregate, constitute the function of nutrition. Nor do we think it necessary to enumerate the many causes that may operate to modify, interrupt, or pervert the nutritive functions, but your physician will tell you that amongst the chief is *imperfect digestion* of the food taken into the stomach. And he will also tell you that what is taken into the stomach in the form of solid alimentary substances, is never prepared for easy, rapid and complete digestion without having been previously well masticated and thoroughly mixed with the juices of the mouth.

Have I succeeded in making it plain to you how important is this first and primary operation of mastication, in which the teeth play so essential a part,—how thorough mastication is necessary to good digestion,—how good digestion so largely influences the healthy nutrition and growth of the body,—and how, by imperfect or perverted nourishment of the system an enfeebled or vicious constitution may be bequeathed to your child, and the seeds of disease sown in early life that may compromise the well-being of your offspring for all time. These facts are presented for your earnest and thoughtful consideration, that you may better appreciate your responsibilities and duties towards these little ones whose helplessness and dependence so strongly appeal to you as their natural guardian, and whose highest interests and welfare in all that concerns their present and future happiness and usefulness, you cannot knowingly slight and be esteemed guiltless.

If it be true that the uses of these first teeth are so important, you will at once see and appreciate the necessity of preserving them in good, serviceable condition until the appearance of the second set. There can be no proper preparation of the food in the mouth if the infant grinders are prematurely lost, or, are much diseased or broken down by decay, or so sensitive from the same causes that the child is thrown into frequent paroxysms of pain whenever it attempts to masticate solid food. To avoid this suffering, a habit of "bolting" the food will soon be acquired, and the latter will pass continually into the stomach in a crude state, unmixed with a due proportion of the secretions of the mouth, producing, in all probability, when swallowed,

serious functional derangement of the stomach, and ultimately of the whole system.

We have now presented the most important reason why the temporary teeth should be preserved. There are other reasons, of minor concern perhaps, but which are worthy of consideration. The suffering which children endure from toothache is certainly not less than that experienced by the adult, and to save a child from such an infliction is demanded by a feeling of common humanity,—how much more so when the little sufferer is the object of parental affection and solicitude. Early and constant attention may save your child this sad experience, and secure its exemption from a very common and distressing disorder, and yourself from many sleepless nights and hours of harassment.

Again, the still sadder misfortune of being obliged to have aching teeth removed, presents an additional motive to you to give your attention to these teeth in time. The dread of dental operations we believe is more frequently acquired in childhood than at any other period. The impression of early suffering is oftentimes abiding, and it is difficult to persuade them in after life, that *all* operations on the teeth are not alike *horrible*. It is often only by a *new* experience that they are taught otherwise, and before that is acquired, many good teeth are permitted to decay hopelessly, and are sacrificed.

Finally, these first teeth should receive early and constant attention to prevent their *premature* loss. You should adopt every means to retain them in the mouth until, in the natural order of things, they are to be replaced by the permanent organs. As the crowns of the second set advance towards the surface of the gum, the roots of the first teeth are gradually absorbed, so that the latter, when the proper time arrives, may be readily, in most instances, picked out with the fingers, inflicting little or no pain upon the child. The early loss of the first teeth should be avoided for several reasons. They subject the child to violent pain in extracting them, and make them ever afterwards timid and fearful of really unavoidable operations. Mastication is rendered more and more imperfect with every tooth lost, the pernicious effects of which we have already pointed out. A final reason why these teeth should be retained until the processes of nature indicate their removal, is, that their continued presence is necessary to the complete and perfect development of the jaw, on which depends so much the beauty, regularity and health of the second or permanent set of teeth. The jaws grow and expand as other parts of the bony system, but to do so regularly and symmetrically, the natural

processes of the system must not be interfered with. If your little child loses a tooth at three years of age, the nutrition of all the parts around that tooth will be so modified or interrupted that there will be retarded growth and development of that particular part, and instead of gradually expanding at the same rate as other parts of the jaw, the space will remain nearly the same down to the time when the tooth of replacement comes forward, and there will consequently be relatively less room for the permanent tooth. It is in this way that the second teeth take their place in the jaw in a crowded and irregular condition for the want of adequate room, whenever any number of the deciduous teeth have been prematurely removed. Irregularity of the second set occurs most frequently, because the first ones are lost *too soon*, rather than from having them retained *too long*, as is often supposed.

We have now very briefly and imperfectly glanced at some of the reasons why you should interest yourself in the preservation of the temporary teeth of your children, and believing that you need only to be informed of your obligations to those wholly dependent on you for all the blessings which it is in your power to confer, we shall, at a future time, offer you some suggestions as to the *means* by which these valuable organs may be retained in good, or, at least, tolerable condition during the entire period nature designed them for service and usefulness.

Terre Haute, September, 1868.

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#### FURTHER ADVICE TO THOSE WHO WISH ARTIFICIAL TEETH.

In the last Journal we referred to some of the difficulties attending the wearing of artificial teeth; the trouble mostly complained of we have reserved for this number, viz., The unnatural appearance of the teeth when first inserted.

The question first to be settled is, Who is to judge what is natural? Certainly not the patient, who has been without teeth for a long time, nor members of the family, nor intimate acquaintances, who have become accustomed to their appearance without these important organs.

It is a principle well established by experience, that a deformity, even hideous in its character, will, by daily intercourse, cease to attract notice. Take, for example, cross-eyed children; how seldom do parents notice this (to strangers) forbidding deformity. Pope nervously expresses the truth of this sentiment in a moral aspect when he says:

" Vice is a monster of such hideous mien,  
That too be hated, needs but too be seen;  
But seen too oft, familiar with her face,  
We first endure, then pity, then embrace."

What consternation pervades the family circle when one of its members returns from the dental office having had his teeth extracted preparatory to an artificial set, while even yet the cheeks and lips are partly kept in place by the alveolar processes or sockets. A few weeks will suffice to reconcile the family to the disfigured countenance; and as the alveolar processes gradually absorb, and lips and cheeks shrink apace, the family as gradually come to look upon the face as natural.

The patient again visits the dental office to have the artificial teeth inserted. Who now is best able to judge how the teeth should be arranged to preserve the harmony of the features, the patient and accompanying friends, or the dentist, who, perhaps has not seen the face since the day the teeth were extracted?

*We answer, the dentist.*

By dentist we do not mean every man who sticks two boards out against a building, in the form of a triangle, on which is gilded the word "*Dentist*"—but one who is a dentist in fact, who has so studied the harmony of the features, that he can give a reason of the faith that is in him; who, having the cheek-bones, nose and chin as guide marks, can fill out the mouth to harmonize with them; who, having observed the complexion of the skin, the color of the eyes and hair, and the age of the patient, can select teeth of such size, shape, and color, as he finds nature gives in similar circumstances.

The judgment of the dentist should be respected, and then, after sufficient time has elapsed to wear away impressions created by the absence of teeth, and an acquaintance has been formed with the altered expression, if the friends and acquaintances do not become reconciled to the denture, the dentist is responsible. On the other hand, should the patients presume to dictate how the teeth should be arranged, what should be their color, shape and size; in other words, should they presume to occupy the position both of patient and of dentist, producing, as it certainly would, an unsatisfactory result, the responsibility would be their own, and any after change would demand a corresponding fee.

However great the anxiety of the patient may be as to the final result, it cannot exceed that of the dentist, for on its successful issue depend his interest and reputation. Our advice then is, secure the services of a competent dentist, and then implicitly rely on his judgment.

## NEURALGIA.

Many of the readers of this Journal may think that *neuralgia* is a strange subject to treat of in connection with *dentistry*, and no doubt will be greatly surprised at some of my assertions in this article; but they are *true*, and when those who have suffered for years, and are suffering now from that dreadful and wearing disease, in other localities, as well as the face and head—for neuralgia—as its name, *nerve-pain*, indicates—may be exhibited wherever the nerves are situated—and shall have been relieved and *cured* by the *dentist*, they, perhaps, will begin to think that *teeth* have considerable to do with some of the ills of the body, that simple toothache is not the only form of suffering originating from the misuse and neglect of the teeth, and that dentists have some claim to the gratitude of humanity, as well as the medical fraternity. Perhaps, too, you will give more credit to the advice of your dentist, and think him a more useful and necessary “institution to have around,” and that he can afford considerable relief to the human family, besides *simply* “stopping up holes in teeth,” and “bleeding” you for the *simple* operation.

I am not complaining; but I feel a little sarcastic sometimes at the manifest want of appreciation of our profession, when I see what untold suffering and intense agony we are enabled to relieve even after the “family doctor” has tried long in vain.

How many of you have suffered for years with excruciating pain in the face, or only for a short time—with no pain in the teeth apparently—and had your physician prescribe for you, time and again without relief, except perhaps for a brief period, and have been comforted with the assurance that you had the neuralgia, and nothing could be done for you! I know of many such cases—and they are not “few nor far between” at this time even, though many physicians are cognizant of the fact that diseased teeth are oftentimes the cause of such pains—and (I am happy to say) do themselves and us—the dental profession—the honor of heartily recommending their patients so afflicted to the dentist.

I would not have you understand me to say, that all your pains and aches are caused by diseased teeth, neither do I assert that *all* the pains and aches that are traceable to the teeth for their cause, rightfully or technically come under the head of *neuralgia*—but as the term is used in so general a sense by the medical profession, as well as by the people, I use it here in the same general sense—but I do assert that a great many of them are, and of course by proper care of the teeth a vast amount of suffering might be avoided.

1st. Have your teeth well taken care of by your dentist, if they need any attention by reason of your own neglect, or through causes beyond your control; I mean have them thoroughly looked after and put in as healthy a state as possible, and *keep* them so; then your liability to neuralgia or any other disease of the teeth and gums will be very much lessened. And here let me say that it is an error to suppose, that when your dentist has once put your mouth in order, it will stay so for an indefinite period. On the contrary, the mouth ought to be examined by your dentist at *least* two or three times a year, and not wait until your teeth begin to ache, for "an ounce of prevention is better than a pound of cure."

2d. If neuralgia attacks you, and you are conscious of any disease of teeth or gums, however slight, or even if a tooth should be tender to pressure or percussion, or sensitive to sudden changes of temperature—for often where there is nothing visible to the eye, such symptoms are conclusive evidence of disease of some sort, and may point to the cause of your trouble—or if you have earache, or pain in the eye, it might be well to consult your dentist, and you might be apt to get relief, when all the prescribing of your physician might do you no good whatever.

I will now state a few *facts* from undoubted authority, then you can judge whether it be good policy to take *good care* of your teeth. Dr. Fouche, of Philadelphia, relates the following cases: A lady suffered great pain directly under the "collar-bone" on both sides of the chest. Upon examination of her mouth, two lower teeth on either side were discovered to be diseased. By irritating them the pains in the chest were greatly increased, and by proper treatment of the teeth, the pains in the chest disappeared. Another, of a gentleman who had suffered intense pain in the head and face, and after much unavailing medical treatment, was advised to consult a dentist. A number of diseased teeth and roots were extracted, and the operation was followed by complete cessation of pain.

Another case, from the London *Dental Review*, where the patient had suffered *fourteen years* with dreadful pain in the eye, accompanied by a continual flow of tears and intolerance of light. A diseased tooth was extracted from the upper jaw, on same side on which the painful eye was situated, when the eye was speedily restored to health.

A patient called at my office only a few weeks since with a dreadful earache of long standing, but toothache had recently been coupled with it, and he wanted the tooth (a lower wisdom tooth) extracted, as he "couldn't stand both aches at once."

I told him his earache would probably cease with the toothache, on extraction, which was the fact shortly after.

I might gather hundreds of similar cases from our own dentists of Chicago, were it necessary, but these few facts will convince you, I trust, that neglected teeth may cause a world of trouble.

And here let me urge you to attend well to your teeth, then you may be spared some of the other effects of bad teeth—dyspepsia and its dependent ills included—as well as the dreadful pains of neuralgia.

JAY.

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#### EDUCATED ENDURANCE.

The philosophy of pain is one of the first lessons which should be taught a child. To suffer, as well as to enjoy, is a portion of the inevitable destiny of every human being. Our mental and physical structure is such, that the capacity to enjoy presupposes the liability to suffer. Neither fortune, or friendship, or sympathy, or love, can wholly ward off the approaches of evil. There are no human or divine protections which can entirely withhold the chalice of suffering from a sensitive and perishable organization.

The child cannot be too soon taught this infinitely important lesson. Loving our children so much, we are prone to leave them in ignorance, when ignorance is *not* bliss. Pain is sometimes fearfully intermixed with their earliest experience of life. It is something to which they are at all times exposed, and from which an escape with impunity is impossible. Generally, all the teachings they receive in relation to this subject are positively hurtful. There is no industry spared in inspiring them with a fear of the fire, and deep waters, and chilling winds, and drenching rains. All the moral machinery which can possibly frighten a child into a decent observance of the commonest laws of health, is incessantly plied—worked, so to speak, with a “forty horse power;” but when the pain comes—when the dear little fellow, in his own person, must grapple with suffering, then he is taught by implication, by example, by words even, to dread and not to endure, to weakly shrink from that which his parents well know ought to be manfully borne. If any conceivable good were attained by this training, it might be regarded as being at least partially excusable, but so far from this, that it almost invariably produces a degree of morbid or spasmodic nervousness which serves only to prolong and intensify the suffering, which is contemplated with so much fear.

Witness, for instance, what every dentist is often compelled to witness, the conduct of a child brought into the office for the extraction of a tooth. We have seen children face this melancholy music without dread, and exhibit a bravery which, in after years, might acquit them favorably on a field of battle, or in scenes of the most trying experience. But unfortunately, these miniature generals and heroines constitute the exceptions, not the rule. The majority approach the ordeal with not a little ill grace, and sometimes with the exhibition of an ugliness of feeling and manner anything but complimentary to the original sweetness of human temper. And the scenes which follow not unfrequently leave an unpleasant impress upon the memories of all who are concerned in them.

All that is disagreeable in these occurrences might be easily avoided. The instinct to shun pain is natural enough, and commendable enough in its place. But it should be directed into its proper channels, and trained to its legitimate uses. Parents are, to a greater extent than they seem to imagine, plainly responsible for the behavior of their children while under the experience of necessary suffering. We fear they have but imperfectly performed their most sacred duties, if they have neglected to teach those looking to them for instruction and example, to bear the common trials of their young life with patience and fortitude. The beauty and usefulness of the processes of nature for the development and perfection of physical being can be readily explained to them, and they can be easily so educated to endure pain as to look upon it without apprehension and submit to it without dread. And we can think of no quality, save that of moral goodness, which would be more beneficial to them in after years.

An entreaty for compassion for the dentist would probably seem highly ludicrous; but a compassion which would less frequently place him in the character of a slaughterer of the Innocents, would be as gratifying to him as it would be fortunate for the rising generation.

T. P. A.

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#### CROWDED OUT.

A most excellent article from Dr. Hill, in regard to children's teeth, was received too late to appear in the present number. Like everything, however, from his pen, it will not spoil by keeping. Be patient, readers, you shall have it in the January number.

**DENTAL QUACKS AND QUACKERY.**

DR. ALLPORT.—Having promised you an article for the October number of the Journal, I suppose I must redeem my pledge, and yet I scarcely know how to commence, or how to proceed, for the subject on which you desired me to write, viz., "Dental Quacks and Quackery," is one to which I am by no means capable of doing justice. I have been striving for the past eighteen years to set the current of popular feeling against this class of impostors, by short lectures to my patients, describing the difference between sterling operations upon the teeth and the shams and shows set up in the place of skill and merit, but I despair of making any decided inroads upon the desire for humbug which has become so general and widespread.

Barnum was logically correct in saying that the people were bound to be humbugged. The disposition on the part of the public to encourage this class of men, on the score of their reasonable charges, has become so general that it is next to useless to attempt any method of education by which they may be instructed so as to appreciate skill and thoroughness with remunerative prices, against pretensions on a grand scale and a *very moderate demand* for services.

In addition to the plea of moderate prices, is the recommendation so frequently coupled with it, viz., "Our dentist is such a careful man, he doesn't hurt us at all." Now it would seem scarcely necessary to urge an argument against this fatal mistake of multitudes, who seem to regard the success of a dental operation to depend upon what is in fact fatal to it; for, in the first place, no dentist can plug teeth properly, spending as much time as will insure a successful operation, for such inadequate returns, and, secondly, it is rarely the case that a cavity can be prepared to receive the plug without inflicting more or less pain.

Again, they *warrant* their work,—leaving the impression with the patient that any plug that remains in the tooth is a protection from decay. Many teeth that come under my observation might better be left to decay without the aid of the soft, spongy fillings that are in them, for they only serve to hasten disintegration, and frequently before the filling drops out, the tooth is past redemption.

Thus the popular mind is "*rankly abused*" by these charlatans, to the destruction of thousands upon thousands of these pearly treasures which add such beauty to the human face.

Experience has taught many to their sorrow, that a fair compensation for skill and time paid to a competent operator is to be preferred to low prices, little or no pain, and warranted work, at the hands of quacks and pretenders.

This class of men make the operative branch of their business play into the hands of the mechanical, thus : "Teeth intrusted to their care will usually last from two to five years ; the patient is then obliged to have them extracted and an artificial set inserted."

One victim of the quack tells a friend that Dr. A. or B. is a fine dentist. He filled their teeth, and they have not pained them since they were filled, just as though the preservation of the structure depended upon the absence of pain rather than upon the security of the parts from moisture and the atmosphere. Such attempts at preservation only hastens destruction.

The English language is too barren of scathing terms in dealing with these human vampires. Your publication of the Journal will, I hope, serve to "put a whip in every honest hand to lash the scoundrels naked through the world."      FORCER.

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#### PATENTED COMBINATION WORK.

Seldom are the readers of a Chicago daily paper furnished with a more important piece of information, "if true," than were the readers of the *Tribune* on the morning of the first of September, in the year of our Lord one thousand eight hundred and sixty-three, when it was announced in its columns, that "among the Northwestern patents recently issued to inventors, we notice that of an improvement in mounting artificial teeth, by Dr. John C. Fuller, a popular dentist of this city. The improvement consists in combining the desirable continuity of porcelain platina work with vulcanite rubber fittings, or plates, into one piece, making a light, strong, perfect structure, more desirable to the wants of an enlightened and cultivated taste, than can be made by using single or block teeth."

We acknowledge that we were a little jealous on reading the first sentence of the above paragraph—jealous that another had got so far in advance of us, and yet, proud that a *Chicago* dentist had succeeded in making such an improvement in dental science that the Commissioner of Patents had considered it best to "encourage genius," and protect the invention with letters patent.

But we were doomed to disappointment ; for, on reading the very next sentence, we learned that this patent was for constructing sets of artificial teeth, by uniting, what is known to the profession as Allen's Continuous Gum Work, to a vulcanized rubber plate. As we had made this kind of work some three years before Dr. Fuller applied for his patent, and had known of other dentists having made it long before we ever thought of it, we

could not do otherwise than come to the conclusion (as others have done) that Dr. Fuller either had knowingly been trying to put forward the invention of others as his own, or else that he was ignorant as to what was transpiring in the profession.

In addition to what we knew of this kind of work previous to the issue of this patent, since the publication of the above notice and the letters of Dr. Farnham, in the *Tribune*, we have received letters from dentists residing in different parts of the country, extracts from a part of which we give below. We would give them all, and entire, but for lack of room. What we give, however, is enough to prove beyond all question, that this mode of constructing artificial teeth is both old and of doubtful utility.

The following is from the Editor of the *Dental Register*, and Professor of Operative Dentistry in the Cincinnati Dental College:

CINCINNATI, Sept. 9th, 1863.

Some two years ago I set two or three continuous gum pieces in rubber, and within the last year have lined quite a number of sets of teeth (continuous gum) that were made, immediately after taking out the teeth, with rubber. This involves the same principle that Fuller claims. It is familiar to hundreds of dentists through the country, and is practiced by many. There seems recently to have sprung up a mania in the dental profession, for patenting every new little item that may occur in the mind of many. I do not know whether we shall ever be free from the annoyance or not. A man takes the patent fever, and it runs through all its stages, in from one to two years, and as a general thing he then comes out at an aperture of very small diameter, financially.

There seems to be a constant supply of new victims. Whether the material for these victims will fail or not we do not know. This is simply an instance of men failing to learn by others' experience.

Truly yours,  
J. TAFT.

From the Patentee of Continuous Gum Work:

NEW YORK, Sept. 8th, 1863.

The combination of continuous gum with rubber was tried here some seven or eight years ago, and occasionally pieces have been made since that time, but it has never met with much favor here, nor is it used here scarcely at all now, from the simple fact that there is no advantage in it. Continuous gum work properly made, is far better without the rubber, than with it.

Respectfully yours, JOHN ALLEN.

From the Editor of the New York *Dental Journal*:

NEW YORK, Sept. 14, 1863.

I have now on my table a piece I made for the fair five years ago. It is a continuous piece upon a platina plate, the plate covering the alveolar ridge, and this mounted on a rubber base with rubber attachments, to restore the cheeks the same as with continuous gum. C. S. Putnam's man vulcanized it for me in 1856 or '57. I used this work to a very limited extent, as I found it very objectionable. If by any chance a tooth was broken, the rubber would have to be removed and the continuous part mended, and then a new impression taken and revulcanized the same as in the first instance. Upon the whole, I consider this style of work the most impracticable I have undertaken. In a case where I could use this, I could use continuous gum work.

Truly yours, W. B. ROBERTS.

SAINT LOUIS, Mo., Sept 9th, 1863.

Soon after rubber work was introduced into this city, this method suggested itself to my mind, and also the better one of attaching continuous gum sets, either in blocks or in whole arches, to gold plates by means of vulcanized rubber. I described these processes to my dental friends here, I think fully two years ago, probably more. I prefer the blocks to full dentures in a single piece.

Truly yours,  
C. W. SPAULDING.

From the Editor of the *Vulcanite*:

NEW YORK, Sept. 12th, 1863.

The style of work (continuous gum blocks) in partial as well as full cases has been mounted on the vulcanite base in this city for over six years. Several dentists adopted it as a kind of speciality, with varied results. Among those who have used it the most, I can mention Dr. Bingham and Dr. J. S. Dodge, of this city. The idea of a patent being granted for this combination is simply absurd.

Respectfully yours,  
B. W. FRANKLIN.

The reader will bear in mind that Dr. Franklin says that Dr J. S. Dodge is amongst those who have used this kind of work the most of any Dentist in New York. Now we will see what J. S. Dodge says of it:

10, E 17TH ST., N.Y., Sept. 11th, 1863.

We certainly must have made the work in question, however, as much as three years ago. Speaking only from memory, I should say we made at least twenty-five or thirty of such cases; but we have ceased to recommend them. The difficulty and expense of repairing the continuous gum (involving the removal and replacing of the rubber) are serious objections. We are now making a combination of rubber and gold, which we much prefer.

Truly yours, J. SMITH DODGE.

Oswego, Sept. 18, 1863.

I have made the style of work recently patented by Dr. J. C. Fuller, of your place, for four years past.

Finding it *troublesome to make, and EXTREMELY DIFFICULT TO REPAIR*, I make but little of it. I still wear an *under set* of that make, but do not regard the style of work as the most reliable or beautiful.

Specimens of this kind of work are beautiful, but, probably, like Satan's tail, when painted blue, more ornamental than useful.

Should be delighted to make the acquaintance of any gentleman who would, at this late day, say, under oath, that he is the inventor of this style of work.

Very respectfully yours,

D. S. GOLDEY.

BELLEVILLE, CANADA WEST, Sept. 22, 1863.

While at Oswego last week, I called upon Dr. Goldey, who showed me a circular issued by Dr. Fuller. I made that style of work over four years ago, as have many other dentists East. It is positively absurd for him to claim it as new.

Yours, etc., G. V. N. RELYEA.

ROCHESTER, Sept. 19, 1863.

It may be new to him, but to dentists in N. Y. State, it is, and has been for the last five years, a common occurrence to mount teeth in the way set forth by this patent, and furthermore, we have used it long enough to be satisfied that it is not as good as rubber alone, except in certain cases, and in those cases even, there are prominent objections.

I have always looked upon Chicago as a fast place, but if this is a new thing, then must conclude that, in some things, she is "behind the times," and that the man who would patent such an old operation must be either a "slow coach," or a new beginner. It is so old even here in Rochester, as to be nearly out of date.

I think the first case of the combination that I put up was five years ago, and I can refer you to many others who have used it long previous to the date of this patent. Yours respectfully,

E. F. WILSON.

As one of the first requirements in establishing the validity of a patent is to prove the *originality* of the invention, it will appear from the above letters that this patent is not valid; and if it were, the invention is of no practical utility, as the labor of repairing is nearly equivalent to making a new set, and fully equal to making a rubber set.

We feel that our duty to the interest of the profession requires us to discourage the practice, too common among a certain class of dentists, of patenting every little point of difference in their work or method. Even if we do all we can for the profession, and freely give to it the best results of our labors, the balance will always be in its favor, and we must die largely in debt to it. We are glad to know that a large majority of the better class of dentists are opposed to dental patents, and we hope that a more generous *esprit de corps* may soon pervade the *whole* profession.

We give these extracts and comments in no spirit of unkindness toward Dr. Fuller, but simply to do justice to others of the profession, and to set the matter right before the public. A.

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#### AN EARLY FLOWER.

Having recently had our attention called to the following choice extract from the opening circular of a newly-fledged dentist, from the laboratory of his "uncle," we desire to make an item of it, as it represents a large class of men who palm themselves off for dentists, while their education has been confined to the *laboratory*, and who have no knowledge of the really important portions of the art, which can only be acquired by years of close study and practice in the *operating room*.

"I am prepared to insert artificial *indentures* in the superior and inferior maxillary jaws."

Whew! a new "combination,"—"maxillary jaws,"—well, that ought to be patented forthwith. But then what can be its object? It seems he proposes to insert *indentures*, in the "maxillary jaws."

Webster says an *indenture* is a "writing, containing a con-

tract." We are exceedingly puzzled to know what use these "indentures" can be put to; they certainly cannot be to chew with,—perhaps they may be to chew on, in learning the use of teeth, which the young man evidently intends to insert in the mouths of his patients. We cannot imagine any other use for "indentures" in the "superior and inferior maxillary jaws."

The same individual, in his aspirations for literary fame, wrote an article for a dental journal, in which he enlarged somewhat on the use of *saliva* in mechanical dentistry, (we fancy his patients would relish the article,) so that he is known as the "spittle correspondent" of said journal.

Here he again refers to his "indentures," but does not enlighten us as to their use. We hope, however, that an article from his brilliant pen may yet let in a ray of light on our beclouded intellects.

But such is only one instance of the many occurring in almost every community, of individuals who, after spending some time in the laboratory of a dentist, "open" for themselves, giving the public to understand that they are versed in all that pertains to the profession, while their ignorance is exhibited in their very attempts to enlighten. We think it may safely be set down as a rule, that a person who makes such excruciating attempts to display his learning, not only displays his ignorance, but shows his utter unfitness for the profession, and which nothing but a proper course of instruction under some competent dentist, and a course of lectures at a dental college, will remedy.

It is quite time that all such quackery should be frowned down, as it surely will be, when it comes to be fully understood by the public.

X.

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#### THE CHICAGO CHARITABLE EYE AND EAR INFIRMARY.

We would call the attention of our readers to the announcement of this institution, as given on another page. The public is, perhaps, not aware that the Infirmary has now been in operation five years. Its object is to furnish gratuitous and scientific treatment for the poor afflicted with diseases of the eye or ear. The names of the gentlemen composing the Boards of Trustees, consulting and attending surgeons, will be an evidence to the public of the character of the institution. The records of the Infirmary show that *twelve hundred* patients have been treated by its surgeons.

In every community there are a greater or less number of poor afflicted with these diseases. They are often unable to secure suitable treatment, and such affections, when neglected,

almost invariably result in permanent injury, or even loss of sight. Few diseases so completely destroy the happiness of the suffering poor, and render them so utterly helpless and dependent upon charity, as neglected or mismanaged diseases of the eye. One can scarcely estimate the amount of pauperism, ignorance and misery, dependent upon these diseases. They render parents incapable of maintaining and educating their children, and prevent the young from acquiring the elements of knowledge, necessary to fit them for the ordinary duties of life.

In the larger cities of the East, splendid hospitals for the gratuitous treatment of the poor afflicted with diseases of the eye or ear have been established, and are now supported by funds raised by public subscriptions and by grants from the States.

We are glad such an institution has been founded in Chicago. We hope our readers throughout the Northwest, especially those of the profession, will feel interested in this charity, and encourage its support by such aid as they can give, and by urging the poor who are in need of suitable medical or surgical treatment, for diseases of the eye or ear, to apply to the Infirmary.

Letters directed to any of the surgeons will meet with immediate attention.

A.

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**OBITUARY.**

DIED, in Buffalo, N.Y., at the residence of Paul Park, Esq., FANNIE, wife of Dr. Edgar Park, of this city.

The sad news came quickly. "Sad," for she was good, and we grieve when they who are deservedly our exemplars are removed from our sight forever. How heavily falls this news of death upon parents and sisters, who loved and cherished so dearly the excellent lady we now mourn. And yet we should not mourn. The bending willow is not the fitting occupant of the cemetery yard, the garden of the dead. The lofty oak and century elm rather, which toss their branches toward heaven. We should not plant the hyacinth, but anemones, and bring immortelles to scatter over the resting place of our loved. For they have a progressive mission to perform, as the stars have, and must tread, as they tread, the sapphire streets.

To him who has lost for a time the partner of his pilgrimage, we offer our sympathy, still saying, Be comforted—Look out into the sunshine, which is but a faint emblem of the glory that surrounds the departed.

A friend of Dr. Park, passing a few days in the city, and knowing of his connection with our business, has handed us, for insertion, the above obituary notice, which we gladly publish.

A.

**EYE AND EAR.**

We wish to call the attention of those who are in need of a reliable physician, to treat the eye and ear, to the card of Dr. Holmes, in our advertising pages. In doing this, we wish to say to our readers, what we have said a great many times, in private, to those wishing a good oculist or aurist, that Dr. H. is a regularly educated physician,—has spent several years in the hospitals of Europe, where he has given especial attention to diseases of the eye and ear,—is now a regular practitioner of medicine in this city,—is a Professor in Rush Medical College, and is held in the highest repute by the entire medical fraternity. In saying this much in regard to Dr. H., we wish all to understand that it is not for the purpose of giving him a “puff,” in the usual acceptation of the term; we simply state what every respectable physician in Chicago would say, if asked; and we do it for the purpose of assisting those who visit Chicago in search of an oculist or aurist, to discriminate between the educated physician and the impostors and quacks who infest this as they do all other large cities. A.

**PUBLICATION NOTICE.**

THE DENTAL LUMINARY, edited and published by the Cincinnati Dental Association.

We have received the first number of a neat, little, sixteen-page quarterly magazine, bearing the above title. Although the *Luminary* is more particularly intended to enlighten the public at large, there are many dentists who could read it with profit. The people need to be more thoroughly educated as to the importance of the teeth, and how best to preserve them. Just in proportion as they are well informed on this subject, and appreciate the difference between good and cheap dental operations, will they demand skill in dental surgery. Ignorance of the science, on the part of the people, is the strongest bulwark of quackery in every department of medicine. We know of no better way to educate the public mind than by disseminating through the press information adapted to the non-professional reader. For our own part, we should be glad to see this done by *one* or *two* journals, which should concentrate the talent and strength of the profession, and be *self-sustaining*. People pay for the information they get from other public and professional journals, and we know of no reason why they would not be willing to do the same for this, since no information can be of greater ad-

vantage to them than that about the teeth. Why, then, not pay for it? If other dentists differ from us, let them educate the people in their own way; let us have them educated, at any rate. We, therefore, welcome this little quarterly to our list of exchanges. Below we give some aphorisms taken from the *Luminary*, which we hope will be read with attention: A.

The brush should be used with a firm rotary motion on the inner, crown, and outer surfaces, and as much as possible between the teeth twice a day. Use with it some simple powder paste or soap once a day.

Use a tooth-pick, made of wood or quill, thoroughly, and rinse the mouth after each meal.

Never employ a dentist because he is cheap. It will prove very expensive in the end.

Cracking nuts with the teeth is liable to fracture the enamel, and exposes them to decay.

The smallest cavities, abrasions, or spots, in the enamel, require the early attention of the dentist.

Do not wait until the teeth ache before having them filled.

All operations upon the teeth are performed with much less suffering when inflammation or irritation does not exist.

Have a dentist examine your teeth carefully every six months, perhaps oftener, if an adult, and every three or four months during childhood and youth.

Keep all your fillings bright and well polished, especially those between the teeth, using a stick and some fine powder for that purpose when the brush alone does not accomplish it.

Gold is the best substance known for permanent fillings.

Food should be eaten slowly, masticated on both sides of the mouth, pass frequently from one side to the other, by which means it is more minutely divided, more thoroughly mixed with saliva, and in consequence is easily swallowed, easily digested and easily assimilated.

Depend upon the saliva to moisten the food rather than upon liquids taken as drinks. No inferior animal eats and drinks at the same time.

The teeth require the friction of mastication and the washing of the saliva to keep their surface clean and free from tartar.

To insure perfect health, every adult person requires a full set of sound and healthy teeth.

The first or milk teeth of children should not be extracted until their roots are absorbed, which is known by their becoming very loose—exceptions to this rule are, cases of non-absorption of the roots, resulting in irregularities, requiring professional skill in their management.

**OUR NEW ADVERTISEMENTS.**

Thos. B. Morris & Co., FUR DEALERS, 107 Randolph Street. H. C. Van Schaack, Jr., HARDWARE MERCHANT. The weather-wise prophecy we shall have a winter of uncommon severity. To meet the exigency, go to Morris' and select your furs, from the largest assortment in the city. For stoves of the most approved styles, go to Van Schaack's: you can do no better.

G. T. Belding & Co., MAMMOTH CLOTHING ESTABLISHMENT, 100 and 102 Randolph Street. One of the largest, best, and cheapest establishments in the city.

Gard's PHOTOGRAPHIC ART GALLERY, 102 Lake Street. As an artist, Mr. Gard has no superior in the city.

A. Miller, M.D., HOMOEOPATHIC PHYSICIAN—office, Room No. 1, Metropolitan Block. Dr. Miller's success in this school of medicine is his best recommendation.

METHODIST BOOK DEPOSITORY, 66 Washington Street. We call attention to the fact that this establishment has recently been enlarged, so they are now prepared to do Job and Book Printing neatly and on short notice.

E. H. Sargent, Apothecary. Read Sargent's new advertisement of REEVES' AMBROSIA FOR THE HAIR. Sole agent for Chicago. It is no humbug.

See Wheeler's & Wilson new advertisement. Those TWO MEDALS speak for themselves. C.

**NOTE.**

Owing to having enlarged our Journal to nearly twice the size originally intended, the high price of paper, and increased expense in printing, the price of the Journal hereafter will be one dollar per year. C.

**METHODIST BOOK DEPOSITORY**

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T H E  
PEOPLE'S DENTAL JOURNAL.

JANUARY, 1864.

DENTAL HYGIENE.

That clean and healthy teeth are of great importance, whether regarded in their relation to the health or to personal beauty, few intelligent persons will question. Yet many, who take a sensible and practical view of most other matters, are sadly at fault in their theory and practice as to the best method of preserving these important organs.

No principle is more plainly taught in dental science, or clearly demonstrated to the dentist by his everyday experience, than that the decay of the teeth is the result of external agents, corroding and dissolving out the limy portion of their structure. In other words, the decay of the teeth is from chemical causes, acting from without, and not from any disease from within, as many suppose. With this view, we desire to ask all sensible persons what, in their judgment, would be the most efficient means of preserving the teeth from decay?

Clearly (we answer for the reader) positive and unqualified cleanliness of the parts, is the rational means to be adopted. To accomplish this, a thorough and careful use of the tooth-brush and toothpick after each meal, or, at least, once each day, is indispensable. No other agents can be made as efficient. The friction of the brush removes all deleterious matter from under the free edges of the gums and from the exposed surfaces of the teeth, whilst the toothpick (one made from a common goosequill is always the best) can be readily insinuated between the teeth to remove any particles of food remaining, which, if left, will decompose and generate an acid which unites with the lime of the tooth, and breaks down its structure.

But, says one, I know a person, sixty years old, who seldom, if ever, brushes his teeth, and yet they are perfectly sound. Very likely what you say may be true. We have seen similar cases, but whenever they occur, they are found in individuals

who have remarkably firm and well organized teeth, and the secretions of whose mouths are normal, not only free from destructive agents, but calculated to neutralize whatever acids may be generated by the decomposition of food lodged between and around the teeth.

The granite for years bears its front to the waves, and defies the passing tempest without appreciable effect, whilst the sand-stone is easily washed away, and its change is observed by each passing mariner. There are a few persons with constitutions strong enough to defy vices and bad habits, and yet live to old age, whilst the many are so constituted that they are obliged to pay careful attention to the laws of hygiene, in order to secure good health; so there are a few teeth of structure so firm and compact, that they will resist the action of agents which will readily dissolve and break down those of a more porous and delicate organization, as the firm and polished marble resists, without injury, agents which readily act upon and dissolve the porous and friable chalk.

It is often asked at how early an age ought the teeth to be cleansed. You might, with as much propriety, ask the physician how soon the child ought to be cared for in order to insure good health. We answer, as soon as they are exposed to the action of external influences, which is as soon as they make their appearance. If parents would pay attention to this simple but highly important practice of frequent and thorough cleansing of their children's teeth, and would accustom them to the habit of cleansing them for themselves, as soon as they are old enough, as carefully as they do to the habit of keeping their faces and hands clean, much unnecessary suffering would be prevented, and their bills with the dentist would be much smaller.

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### FAMILIAR CONVERSATIONS ON THE TEETH.

BY A. HILE, D.D.S.

#### CHAPTER III.

A. Allow me to call your attention to the subject of preserving the *temporary* teeth of children. Many people suppose that it is of little consequence to preserve them until the natural period of moulting. Will you be kind enough to present your views upon this topic?

B. I will do so with great pleasure, hoping to retain your attention in the future, as in the past.

Allow me, then, to observe, that nothing can be more erroneous on the part of a parent, and few things more unfortunate for the child, than such a supposition.

For, in the first place, the premature removal of these teeth may seriously interfere with the natural and timely development of the permanent ones. The rudimentary pulps of the second crop may be so injured, and the delicate network of bloodvessels and absorbents so rudely torn away by their premature extraction, and the relations upon which the successful development of the permanent teeth depend so changed, as to preclude the hope of a perfect denture.

A. But suppose the temporary teeth decay and become painful, what then should be done?

B. *Fill* them, and preserve them as long as possible. No faithful practitioner would advise their removal while there is a chance to save them. I deem this a point of *great* importance. There is a time, a *proper* time, for their removal; and that is, when their space is absolutely required for the *permanent* teeth. To lose them at an earlier stage, is a misfortune to the child. There are cases to be sure, where, through neglect, the temporary teeth are allowed to decay to such an extent, as to make the attempt to save them entirely hopeless, and then, to prevent great suffering, it may be advisable to remove them before the natural moulting period.

A. But suppose, as often happens, the permanent teeth protrude, while the first teeth are *in situ*, what then should be done?

B. Such cases require much circumspection, and will tax the soundest judgment.

It is not *always* wise to remove them even under such circumstances immediately. As a rule, admitting of no variation, cannot well be given, I would say, seek the advice of the soundest and most discreet dentist, and then submit to his judgment.

A. What would be the consequence of a needless and premature extraction of the temporary teeth?

B. First, the arch of the jaw would contract, and as a consequence, there would be less space for the succeeding teeth. And secondly, this would involve an irregular development and a crowded denture. Let me impress your mind with the fact, that just this transition period is the time when the greatest care is demanded. For upon this care will depend the *uniformity* and beauty of the teeth—the perfect development of the *palatine* and *maxillary* arches. And upon these depend the symmetry of the features and the beauty of the face. Therefore, as you love your child, and desire a harmonious expression

of countenance, and all the other advantages heretofore referred to, do not neglect the teeth at this stage.

A. If what you say is true, is it not surprising that so little attention is paid to this subject by parents and guardians, the welfare of whose children is so intimately connected with it?

B. At first it might excite our surprise, but when we remember the great lack of information upon this and kindred subjects, among the masses, and how reluctant people are to travel out of the old beaten path of habit, either with respect to physical or moral education, we cease to wonder. Most people understand little, and care less, about the strange phenomena of life, and thought, and action.

Life with them is simply a matter of course, and all its grand and glorious phenomena inexplicable, uninteresting and distasteful.

A. What do you mean by *Physical Education*?

B. I mean that care and attention to the body or person, which is requisite to develop them in their highest perfection. Such care as shall secure gracefulness of form, vigor of constitution, flexibility of movement, and personal beauty,—thus fitting the individual, in the most eminent degree, to meet the highest demands of his being.

How seldom in life do we see realized the old Latin maxim—

*“Mens sana in corpore sano.”*

A. “Physical Education!” I perceive you have given it an extensive signification.

B. True—and a very important one, too—much more so than may at first appear. Let us consider it with greater particularity, as it has an intimate connexion with the subject under consideration.

It is a well known fact, that a *very large* proportion of the human race die in infancy, and a large proportion die, also, during the period intervening between infancy and manhood or adult life. Now, it is no very difficult thing to prove, that the want of *physical* training is the chief cause of this fearful sacrifice of human life.

A. You have assumed a bold position, and if you are able to sustain it, you will greatly increase the interest which I already feel in these conversations.

B. Let us see. Do you not know that plants require more care, when they commence germination, than when they come to maturity? That nurserymen and vine-dressers bestow the greatest care upon the *tender* plant? Have you forgotten those

lines of the poet, which you learned from the old "English Reader" in your schoolboy days, that

"Just as the twig is bent, the tree's inclined?"

Now these words which we have quoted, and with which we design to refresh your memory, are just as applicable to *physical*, as to mental or moral culture. If you bend the shrub, will the tree be erect? If you screw the body of an infant or youth into rickety contortion, and that habitually, will the adult be perfect in form and figure? And if you suffer the teeth to grow irregularly, for the want of suitable care and attention, will not the whole physiognomy suffer?

A. Certainly this is true. And I now recall many instances illustrative of your remarks, but I have never felt my mind impressed with them before.

B. This part of our subject is replete with interest, and might easily beguile us very far from the main subject before us. But we will take the hint, and so pass along.

Physical education, then, relates to dress—to exercise—eating—drinking—sleeping—in short, to everything that pertains to the development and perfection of the human system. For upon the perfection of an organ depends the *functions* of that organ, as upon the perfection of a piece of mechanism depends its operations. Hence, a perfect body—a perfect organism, is always best adapted to the highest intellectual endowments. The body being the *instrument* of the soul, the *more perfect* the instrument, of course (other things being equal) the more perfectly will the soul display itself *through* the body.

No musician—even Gottschalk himself—can produce good music from an unstrung instrument. Many ripe scholars and profound thinkers make but a sorry display in their attempts at elocution, either because of some defect in the organs of speech, or want of ease and gracefulness in their manner. Both, or either obstacle, might be overcome by proper physical training.

A. I had supposed that elocution was much more the gift of nature, than the acquisition of art, and that nature being somewhat capricious, dispensed such powers with a sparing hand. Consequently, very few are distinguished for commanding oratory, in comparison of the many who are capable of sound mental action. And that those *few* individuals were, what mankind are pleased to call "*geniuses*."

B. You are not alone in this opinion. The error is a common one, for I am persuaded that—other things being equal—it is an art which may be as successfully cultivated by one man, as by another.

A. Ah, here is the rub—"other things being equal!" this constitutes the very difficulty in question.

B. But lest you should misunderstand me, allow me to explain myself more fully.

I include in this phraseology nothing like what you call "*genius*," but simply mean equal physical and mental endowments, and those of an ordinary character. But should one be afflicted with a cleft palate, though equal in every other respect, do you not perceive that it would constitute a very formidable difficulty in the acquirement of a finished elocution?

Again, supposing one to have a perfect denture, and the other to have lost one-half or two-thirds of his teeth, will not the difference be very material?

A. Yes, I begin to comprehend. I find it much more difficult to get along since I had the misfortune to break one of my limbs, than when I had the full power of locomotion. And I can easily conceive, that the loss of one or more teeth—or the malformation of the jaw, consequent on an irregular denture—may present a very serious obstacle in the way of the distinct and perfect utterance of articulate sounds.

B. Your case is directly in point, and furnishes a good illustration of my views upon this subject; and in proportion as you value your power of locomotion, and the ease and comfort with which you can travel with two sound limbs, in the same proportion will you value the skill of the surgeon under whose skilful attention the fracture is recovering.

Now if you were preparing yourself for the bar or the pulpit, and anxious to excel in your profession, and should find an obstacle in your denture that would greatly hinder your proficiency, would you not appreciate the services of the dental surgeon whose skill was equal to the difficulty?

A. Most assuredly I would; but I never supposed before that so much importance should be attached to their operations.

B. Here again, then, you verify the truth of my remarks, a few moments since, that the great mass of the community are ignorant of the surprising benefits to be derived from the judicious and skillful practice of our profession. And the very object of this Journal is to set this matter before you.

A. But are not the resources of nature sufficient to overcome such difficulties, and thus what appears so formidable at first, be subdued by the power of *habit* alone?

B. I grant you that nature is fruitful of resources, and when severely taxed, will do a great deal. Thus I have seen a man without arms exhibit the amazing dexterity of his feet in doing what is ordinarily done by the hands alone; but would any man

hereby argue the worthlessness of the hands and arms? You must also remember, that a constant and irritative friction will soon spoil the best piece of machinery in the world; and that the organs of the voice are so delicate in their structure, that an irregular action, which is consequent upon the loss of even *one tooth*, may materially injure or utterly ruin them for the production of those nice and delicate inflexions that constitute the great charm of public speaking. And more than this, the effort of prolonged speaking under such circumstances involves a strain upon all the series of organs concerned, which may eventuate in hopeless difficulty.

A. They say that "habit is *second nature*." Now may not habit overcome these obstacles, as it is said that the great Grecian orator overcame an impediment in his speech by the habit of declaiming with a pebble in his mouth.

B. *Good* habits are to be encouraged—bad habits to be avoided. It is to prevent these vicious—unfortunate habits of speaking, that I am now seeking to impress these truths upon your mind. *Peculiar* habits grow out of *peculiar* circumstances, and very painful and disagreeable habits find their origin in the very circumstances to which I refer.

A. I perceive you have acquired the habit of *limping* a little when you walk, yet it is fair to presume, that you can scarcely regard *limping* a desirable accomplishment. And yet, you *can* get through the world tolerably well, by limping your way through it. Notwithstanding the remarkable case of Demosthenes, which you have cited, habits are often very bad and most unfortunate.

By the way, who knows but that an artificial tooth inserted according to modern improvements in dentistry, would not have accomplished much more than the "pebble," for the great Grecian orator.

A. Surely you do not mean to say that Demosthenes had lost a *tooth*, which occasioned his impediment, and that he used a small stone to supply the deficiency?

B. No—this was merely a truant thought just popping up in my brain, and so I seized it to give a little zest to the ideas under consideration, yet, I can easy enough conceive how the tongue of any public speaker, overleaping nature's boundaries, with the air hissing through certain holes and crevices, might cause great difficulty in his otherwise pure and elegant language.

A. Now I perceive what you are driving at, and I am anxious to learn more upon the subject. You spoke of the "force of habit," will you allow me once more to call your attention to the subject, lest you should overlook it?

B. Yes—and thank you for the opportunity. Observe, then, this fact, to wit, an imperfect denture occasions unfortunate habits of speech. The effort to accommodate the parts in the act of speaking, where the teeth are gone, or where they are misplaced, obliges the individual to twist the mouth to fit the language, giving rise to the most uncouth and comical contortions, so that, sometimes in looking at them,

“To be grave, exceeds all power of face.”

In speaking, the air must escape in measured quantity. This requires a peculiar adjustment of the *teeth*, the *tongue*, the *larynx*, *vellum* and *lips*. And if the circumstances of the mouth are such as to render it difficult to articulate otherwise, then the lips must be compressed two-thirds their length, and open in one corner like the valve of a French horn. Have you never seen persons speak in this way? And did it ever occur to you, that such a habit of speech was occasioned by the position of the dental organs?

I now distinctly recall the case of a clergyman, whose efforts at public speaking were strongly marked by these characteristics. I can well remember how, as he warmed up with his subject, his whole system would shake with the effort.

The air necessary for the production of vocal sounds, would come up from the lungs, when compressed by the *diaphragm*, and in consequence of the difficulty of escaping in natural, easy and graceful language, it would tear along through the *larynx*, squeak through the *fauces*, and escape, in painful or murderous notes, through one corner of the mouth.

What wonder, that so many public speakers complain of “*husky*” voice, “*sore-throat*,” “*bronchitis*,” “*laryngitis*,” etc.

The only wonder is, that they get along at all.

A. But do you not magnify the evils of which you speak—and is it not possible that your favorite hobby may carry you to extremes?

B. I certainly apprehend no danger on that score. The greatest fear is, that we will not realize as we should, the importance of these physiological facts and suggestions.

Let me still claim your attention, while I present to you other considerations, which may serve to impress the subject more deeply upon your mind.

A. Feeling a desire to avail myself of useful knowledge, of whatever kind, I assure you I shall attend to all you have to say upon this subject with special interest.

B. Feel assured, then, of this one fact, that perfection in elocution requires perfection in all the organs concerned in the

function of speech, and in the enunciation of articulate sounds. As well might you expect to produce harmonious sounds with a tumor in your throat, as to enunciate elegant language with a disordered dental structure. And to be perfectly convinced of this fact, you have only to pronounce the words \* "thee"—"therefore"—"those"—"they," or "that." In doing so, you will immediately perceive the vibratory action of the tongue against the teeth, and the manner in which the lips assist to give definite expression to these words.

A. Stop a moment, and let me try this experiment; I love to make sure work as I go along—*thee*—*therefore*—*those*—ah! yes, I perceive you are correct. Now I am sure I shall prize my teeth more than ever before.

B. Suppose that through carelessness, or unavoidable circumstances, you should lose your front under teeth, how laborious must be your efforts at speaking, and what comical work you would make in trying to enunciate certain words!

A. Well indeed! you have awakened me to new conceptions, for which I thank you. In my carelessness and ignorance, I had supposed that the *tongue* was the only organ concerned in producing articulate sounds. But how thoughtless and ignorant I have been!

B. Yes, ignorant, because you were thoughtless. A moment's reflection would convince you, that without the *teeth*, *palate*, *lips*, etc., to press against, the tongue would be entirely useless for speech. The tongue makes no sound, it only modulates it.

Indeed instances are not wanting to prove, that speech may be continued when the *tongue is lost*. Yet I grant you it is very *important*, if not quite indispensable. But the teeth, lips, palate, larynx, lungs, diaphragm and abdominal muscles, are all concerned in the production of musical sounds or speech, when uttered by a human being.

And a disease of any of these organs must seriously interfere with this most important and wonderful phenomenon. For, as in wind or reed instruments, the slightest cause may vary the sound, or the slightest touch of a valve or key may give a false note, it is equally true of the organs under consideration.

A. But you do not mean to compare the organs of the human voice to a wind instrument, clarionet, bugle or bagpipe?

B. Most certainly I do, and I consider the comparison both apt and pertinent. And as the slightest touch of a valve, or compression of a reed, will vary the sound in a wind instru-

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\* *Vide Robinson on the Teeth.*

ment, so will the slightest change in the relative condition of the organs under consideration produce their corresponding changes in sound as given out by the same individual.

We are now opening up a subject of great interest, which we cannot conclude in the present number of the PEOPLE'S JOURNAL. But we hope to resume it in the next number, and bespeak your agreeable companionship and continued interest until these papers are finished.

Norwalk, Ct., Sept. 10th, 1863.

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It is with pleasure that we give to our readers the following interesting article from Prof. Andrews, in regard to the importance of pure air. This is but the first of a series of articles in regard to health, intended for popular reading, which will be written by Dr. A. expressly for the PEOPLE'S DENTAL JOURNAL.

Although ours is a Dental Journal, we need offer no excuse for publishing such articles in its pages, for, aside from the importance of the article in other respects, whatever promotes good health, not only favors the formation of good teeth, but tends to preserve them after they are formed.

The subject of Dr. A.'s next article will be: "Food—How to select it—How to use it, and how to prevent disease with it."

#### FRESH AIR.

**What comes of it? What comes of the want of it? and how shall we obtain it?**

BY E. ANDREWS, A.M., M.D.,  
Professor of Surgery in Chicago Medical College.

Pure fresh air is, in a general way, acknowledged by all to be absolutely necessary to vigorous health; yet who in Chicago has fresh air to breathe? Strange as it may seem, there is probably not one of all the palatial residences in this city which is built, warmed and ventilated in such a manner as to furnish its inmates with perfectly pure air; and the physician, going his daily rounds, finds, even in the costly mansions of the wealthy, the characteristic forms of disease which result from impure respiration. It is time that the advance of civilization had overcome this state of things so far that, at least, our first-class residences shall be built according to the laws of health, and by the purity of their atmosphere, exclude from their doors all foul and putrid diseases.

The effect of always inhaling an uncontaminated atmosphere is perfectly definite and clear, and easily recognized by the physician. In communities which breathe it, no malignant epidemics ever rage, and no frightful pestilences can prevail. The plague of London never returned after the great fire had swept out and purified the crowded centres of the city, and the other cities of Europe parted with their deadly pestilences as soon as they widened their borders, dispersed their population, and purified their air. The hunter who sleeps under the trees of the mountain side, and draws his breath from the clear sky, never has typhoid fever, hospital gangrene, ship fever, nor plague. Two-thirds of the danger of all diseases, and half the peril of all severe wounds, is removed from those who habitually breathe pure air.

On the contrary, he that breathes air contaminated with decomposing effluvia has the rottenness of the grave lurking in him, while he still walks about with the semblance of health, and he holds his life by a brittle thread, which a breath may blow asunder.

A somewhat extended experience in field military service has shown me the following facts: Soldiers who sleep in the open air without tents, and who, when wounded, lie rudely couched under the trees, with the wind blowing freshly over them, recover in a most surprising manner from their injuries, never yielding to death, unless the bullet has injured absolutely vital organs. On the other hand, those who are carried tenderly into the cabins of crowded steamboats, or are carefully nursed in densely-filled hospitals, breathing the effluvia from each others' wounds and lungs, these men die of erysipelas, of typhus fever, of hospital gangrene, and fall victims without resistance to wounds originally as trivial as the scratch of a pin.

At the battle of Chickasaw Bayou I saw a series of facts which displayed these truths in a strong light. Among the boats appointed to receive the wounded, there was one which was very small and close, and another which was immensely large and well ventilated. By the chance of war, the greatest slaughter occurred in the vicinity of the smallest boat, in consequence of which it was soon crammed full of wounded men, while the larger, being more distant, received but few patients. Before this error could be corrected, a sudden movement of the army caused the boats to part company, and to be sent off separately on a voyage of six hundred miles to St. Louis. Here was a fit opportunity to observe the difference between good and bad ventilation. Within ten days one-eighth of all the wounded upon the small, ill-ventilated boat were dead, and nearly all the

nurses and surgeons were sick. During the same time upon the large boat, only one-twentieth of the wounded died, and the attendants remained in good health.

In the moisture exhaled from the lungs in respiration, there is a considerable amount of animal matter which, in small rooms, begins immediately to decompose, producing a putrid effluvium which is a deadly poison to the human system. In erecting a residence, therefore, the chief danger to be avoided is deficient ventilation. The great practical difficulty in ventilation is the fact that, in our climate, and during the cold season, every cubic foot of fresh air introduced into the house must be warmed at a definite expense of fuel, and hence we have to pay at a high rate for every fresh breath we draw into the house. The means used for heating purposes in first-class residences, and in public buildings, are usually steam radiators and hot-air furnaces. Of these the steam apparatus is by far the most unhealthy, unless it is connected with some special ventilating apparatus. The steam radiators introduce no fresh air into a room, but only heat over and over again that which is already present and vitiated by respiration. For this reason, there is always a certain oppressiveness in the air of close rooms heated by steam.

Hot-air furnaces do somewhat better. They throw into the rooms a moderate amount of fresh air at a very high temperature—often above the heat of boiling water. This air rises to the top of the apartment, and a large portion of it escapes from open doors, crevices of the windows and high ventilators, and is thus lost; while the remainder mixes with the foul air of the room, and partly alleviates the want of ventilation. The air from the furnace has a faint, unpleasant odor, in consequence of the floating particles of organic matter burnt by contact with the red-hot iron, but it is not of itself unhealthy. It is obvious that a large portion both of the heat and of the ventilation produced by furnaces is wasted, without securing complete purity of respiration. As the inventors of our present heating appliances did not understand the laws of health, they of course did not construct their plans in accordance with them; but, if the community becomes intelligent upon the subject, and creates a demand for more perfect inventions, no doubt the skill of our mechanics will supply the need. The problem is this: *At a given expenditure of fuel, how shall the largest amount of warm fresh air be passed through a room?* It is obvious, at a glance, that the same amount of fuel which heats one thousand cubic feet of air to 210 degrees, would, if properly applied, heat three thousand cubic feet to 70 degrees. If the three thousand

cubic feet were introduced into a room at 70 degrees, it would make it as warm as the one thousand feet does at 210 degrees, and by affording three times as much fresh air, it would render the apartment three times as healthy.

It is a positive fact, that half the sick of Chicago have such ill-ventilated chambers, that their chances of recovery would be better if they were taken out and laid upon the house-tops, and half the dead that are carried to the cemeteries have shortened their existence by never obtaining a breath of pure air from the day they betook themselves to their beds. Who among our mechanics and architects will take this matter efficiently in hand, and give us an invention which, without chilling our rooms, or increasing the expense of fuel, will give us twice or three times the present supply of fresh air?

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#### MY SEARCH FOR A DENTIST.

Some intimate probably, some acquaintance of school-boy or college days, at any rate some especial friend, or there would be no occasion for a search. I note the contemptuous sneer of the victim of some quack, I hear the loud guffaw of a dozen urchins at the street corner, who have spelled out dentist signs upon half the doors in the neighborhood, and I listen to the indignant rustle of silks worn by fair demoiselles, who have been cheated into premature loss of cuspids, when I say, "it is a difficult thing to find a dentist."

It was on the morning of a day in November, 1857; a date which mercantile men will not soon forget, that it pleased Heaven to rain upon me many monetary afflictions, and as a terrible episode to the weary attempt to struggle with matters financial, it sent the toothache. One of my largest molars acknowledged an orifice, into which the smallest of all needles might have found its way to the nerve's home.

I remember to have "arranged" things somehow, given the necessary orders at my counting-room, that business might be transacted in my absence, particularly charged everybody for the hundredth time to "look out for breakers," and started at a hurried pace, while my tooth jumped out the cadenza of a quick-step, in search of a dentist.

It was not a time to listen to recommendations. The indorsement of my friend or neighbor, who had been in successful business for a quarter of a century, would be questioned at bank. Guarantees went for nothing. Besides, everybody was

borrowing money, and if I dared stop a man on such an errand, then and there to make an inquiry as to whether Dr. — could pull a tooth properly, or as to who was the dentist of his family, I should have probably received for answer, "Don't bother me about teeth, sir. Go to Cheatem the banker, he'll take out your eye teeth in a hurry."

And so I, a stranger to all the profession, went out in search of a dentist. From the streets in which bales and boxes were banged about all day by industrious draymen, I turned into one some two miles in length, a street on which dwelling houses (and a very limited number of retail shops) were builded, and severally occupied of course by persons of very different degrees. As a general thing, over the few shops, were offices, some of lawyers, (they get in anywhere,) and some of so-called dentists, and some few rooms were devoted, (so said the man at the foot of the stairs,) to dress making and millinery purposes. I stopped at one of these stairways and read upon a large tin sign the words,

CALEB JONES,  
Dental Surgeon.

Had this been all, I might have been a customer of Mr. Jones, for I was in the mood to have something done and speedily.

"Teeth extracted for 25c., and without pain." I took my foot from the stair—no responsible man, thought I, would either take out a tooth for 25 cents, nor publish upon a sign that he would do so, naming a price, nor agree to remove the ivory without hurting like the mischief, unless, indeed by application of ether, and certainly he could not administer that for a quarter of a dollar. I went on—another staircase in another block.

A huge case containing teeth of all sizes, placed upon gums of a lively redness, surmounted by a representative mouth of a colossus, even full of teeth, which opened and shut at regular intervals, being operated upon by mechanism within the thick walls of the case. "Not here," said I. "Punch stands at the door of the tobacconist, and jollily points within." But a man who has a sacred charge, as a professional man has, of the very vitality of his patients, uses no lure and submits to no show of gross counterfeit. Farther on—over my head swung a great three-pronged gilded tooth, and just in front of the next house to it across the sidewalk, suspended by two iron rods to the brick wall, a mammoth sign,

SMITH & BROWN,  
Surgeon Dentists,

in very large letters, gilt, upon a black-sanded ground.

Neither of these, I thought. The carpenter or stone-mason may, with all propriety, by means of a board swung half across the alley in which his little watch-house for taking orders is located, inform the real estate owner, or his tenant, that there Jacob Dojustice keeps his slate.

But the man who handles dental, not building, tools, who has studied "Rush upon the Nerves," not "Potter on Mechanics," makes his announcement in no such manner.

Farther on, then, in my search for a dentist. A door-plate, rather large, of glass instead of silver, told me that

C. TRUSTY, M.D.,  
Dentist,

lived, or had an office within. "Well, I will see Trusty," thought I, and I rang. The girl who came to the door was not trim and neat. I didn't like that. Doctor was busy, I would walk in—hat—coat—chair—and then, "be with you in a moment, sir," from a nook in the corner. The curtains were in bad taste—yellow, and then they were soiled. Where things are in bad taste in a doctor's house, or in a dentist's office, beware—(you shall have an essay on Taste one of these days, in which I will prove to you not only its necessity, but its absolute existence in the house of every reliable professional man.) "Now, doctor," says the patient in the chair, as Trusty turned from him to his case of instruments, "what do you recommend for filling?" "Well," says Trusty, "we consult the wishes of the patient; some we do with gold, and some with cement, you know, when they want a cheaper job."

I had a sudden violent fit of coughing, must go to the door, did go, opened it and did not go back.

I didn't like the looks of things at the first. I certainly did not like to hear a man in whom confidence was reposed, dare to mention, without instant reflection, the cheapest mode of doing one of the most important deeds which challenges the best surgical skill in the world.

Beside, it is not for the patient, but for the dentist, to decide what is best to be done for the benefit of the former. If a dentist be worthy of his position in the fraternity, he will not be dictated to by the person for whose best interest he gives his time and talent.

And so in search of a dentist still.

Another door-plate—this time of silver, very neat. No sign upon the house. A gentleman's residence. The tapestry within the front windows crimson, and the lace, real. The servant tidy and civil; the doctor courteous, and, would I take a seat,

and if there is much to be done, will name a day. I don't know how it was. He was a stranger, but I had instant confidence. At any rate, he shall look at the tooth, and I sat down. "The nerve is exposed, I can destroy it and then fill the tooth; I cannot warrant it, however. The tooth will be a dead one, and may, and I shall hope it will, last you many years. I will do my best to save it." I tried to make him promise to preserve it. He would not. He ran his little glass over all my teeth; pronounced them good; saw no other work to be done. He put something into the tooth. Afterward, upon a day set, very carefully cleansed and filled it. No pains were spared. I bite upon it now as I write, with a gusto. The great four-cornered fellow over it comes down with sledge-hammer power, and covers the beautiful gold filling. Six years of constant service since it was filled, and now all right for six to come.

I found the dentist.

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#### THE NEW SYSTEM OF LIGHT GYMNASTICS.

Gymnastics is not dentistry, nor would it seem, at first thought, that one has any relation with the other, yet the securing of the highest degree of physical health in general has so intimate relation with the preservation of the teeth, and the proper action of the organs connected therewith, that any topic having even an indirect bearing upon the subject, is admissible to the columns of the *PEOPLE'S DENTAL JOURNAL*. We are led to notice the subject at this time from the interest manifested by many of our citizens, in a style of gymnastics which has been arranged and perfected by Dr. Dio Lewis, of Boston, who recently gave a lecture on Physical Culture, at Bryan Hall in this city, illustrated by an able representation of the principal exercises, by several teachers of the new system.

The new gymnastics differ essentially from those to which we have been accustomed from boyhood, where the ladders, and poles, and suspended rings, and heavy weights, and dumb-bells, were so formidable, as not to be used without more or less danger to the new beginner. In this, the child of six years can be taught side by side with the old man of sixty, the yet undeveloped and lithe limbs and muscles of the former growing into strength and grace and beauty, and the stiffened limbs of the latter becoming pliable and elastic under its influence.

No violence is practised in this system, upon any part of the body, and the object sought is not so much the hard muscle of the heavy gymnast, as the free, graceful action of the acrobat.

To this end, the apparatus is all of a light character, easy to handle, and of various sizes, adapted to different ages and degrees of strength. There are *wands*, from three to four feet long, and less than an inch in diameter, with which a beautiful series of exercises are executed; *dumb-bells*, weighing from half a pound to three pounds, so light as to seem of no account in the hands even of a child, but found, after a few moments' practice, to be sufficiently heavy for the purpose intended. Interspersed with the dumb-bell series are several fine attitudes, which add much to their interest, and promote their efficiency; *rings*, of five or six inches diameter, of wood, and, of course, very light, furnish another series of graceful and strengthening exercise. This is the general character of the apparatus, which embraces several other varieties.

A peculiar feature of the new system is, that every exercise is performed with exactness, and in perfect time, to music, so that the learner is taught time in connection with the exercise. In this system, ladies and gentlemen can properly mingle and participate in the advantages of physical development, which are denied to women under the old system, who surely, since the spinning-wheel has been banished from the house, and the wash-tub to rosy-cheeked Bridget in the kitchen, need exercise quite as much as their husbands or brothers. And the whole series is so quickly learned, that, like the boy's whistle which whistled itself, they come perfectly natural. Our little Frank, but eight years old, and with only a month's training, twice a-week, takes his place and goes through the exercises with all the zest and precision of a man.

We are glad to know that no less than four places for the teaching of this system of gymnastics have been established in our city. Two of our young ladies' schools—the Dearborn Seminary and the Chicago Academy—have classes. The class of the former is taught by Miss Stickney, and the latter by Miss Baker, both pupils of Dr. Lewis.

Mrs. Blackall, a pupil of Dr. Lewis, and graduate from his "Normal Institute," has opened a gymnasium upon the above plan, at Shaw's Hall, on State street. She is a most estimable lady, and an accomplished teacher of this system, and we take pleasure in commanding her, and her mode of teaching.

Messrs. Powers, two young gentlemen, also graduates of Dr. Lewis' school, have opened an "Academy of the New Gymnastics," at Odd Fellows' Hall, opposite the Chicago Museum, on Randolph street. The appointments of their academy are convenient, comfortable and home-like.

We hope that our citizens, generally, will take such an in-

terest in the subject of physical education, that our Board of Education will be obliged to attach a gymnasium to each of our public schools, so that the physical may go hand in hand with the mental development of our children.

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**A LETTER FROM THE EDITOR OF THE "NEW YORK DENTAL JOURNAL."**

The following letter from Dr. Roberts, setting forth the proper materials to be used in filling teeth, and discussing the merits and demerits of the different materials used as bases for artificial teeth, will be read with interest, both by the profession and the public.

The assertion of Dr. Roberts, that gold, when used by skillful hands, is in the majority of cases the best material with which to fill teeth, has been so well demonstrated by years of experience, that it will not be questioned by any intelligent dentist; but the position he assumes with regard to the bases upon which to mount artificial teeth, may admit of some discussion; not that gold, when well constructed, and platinum, when properly mounted with continuous gum, are not the best, but that rubber has no higher merits than are accredited to it by him.

While some of our best practitioners have seldom, if ever, used this material, and many of those who were among the first to use it have discarded it, we are of the opinion that there is an occasional case where its use may not only be admissible, but advisable; yet, after having used it more or less for the last four years, we cannot say that we are very warm advocates for its general use. It is a cheap material, and yet it may be questioned whether its cost does not exceed its worth. As it is the public who wear this material in their mouths, it is but right that they should know all the *pros* and *cons* with regard to its merits. We, therefore, give Dr. Roberts' letter, asking for it a careful reading. We shall also be glad, should any of the profession take exception to what he says, if they will give us an article for the next number of the Journal, stating their objections.

We wish to have the merits of rubber as a base for artificial

teeth fairly discussed before the people, and then let it stand or fall as it deserves. We may have a word to say in regard to this matter hereafter.

DR. ALLPORT,

DEAR SIR: We have watched the progress of the publication which you have the honor of editing, from its first issue, with great interest, from the fact that its intention has been to enlighten the public on all subjects connected with dental science; a course which has enlisted our warmest sympathies, and on your success in which, you receive our hearty congratulation.

Such a course is well calculated to result in affording to the people, heretofore comparatively ignorant on this subject, information which they can obtain in no other way.

In so enlightening the world upon the real nature of the services performed by the dentist, you render the task of the operator much lighter and more satisfactory, both to himself and to the patient; as an intelligent and educated patient is much easier to satisfy, and much more agreeable to operate for, than one who from ignorance is always suspicious both of the nature and importance of the work, and the honesty of the dentist, and believes the latter to be capable of taking every possible advantage of him, for the sake of obtaining the highest price for the smallest amount of work.

We have long felt the importance of such a medium of communication between the profession and the public, as your Journal; and we are satisfied that if you go on as you have commenced, you cannot be otherwise than successful yourself, as well as of great benefit to the community. We have practiced dentistry during the past twenty years, and when we reflect upon the matter, it really seems to us as though it had been the object of the profession rather to mystify than to enlighten their patients on the important topics which they have in charge.

Through the columns—editorial or advertising—of the public press, the world is frequently made aware of the most astounding discoveries made by dentists!—of inventions patented by them, in which they possess the sole right!—of improvements which are only known to themselves!—and all this is only a bait to entrap the unwary, and, by imposing on their credulity, to wheedle out of them a few more dollars.

We are sure that by means of the spread of information broadcast through its pages, the “People’s Dental Journal” will, in a great degree, remedy these evils; and we welcome every agent that gives promise of achieving so desirable a result.

By the instrumentality of men who have entered our profes-

sion without a proper sense of their duty and responsibility, we have, among many, gained the reputation of being mere mechanics and tooth carpenters, than which no slander could be more untrue. Such men, who are themselves ignorant of the nicer arts, the importance of adaptability to nature, the science of healing and of abating the progress of disease, are the stains upon our calling, which only earnest and unceasing effort can effectually remove. Dental colleges, periodicals and associations have done much to eradicate these evils from our midst; but much remains to be done, and to do it we need the assistance of the public, who are themselves to receive finally the great benefit of the change.

The most important facts necessary to popularize in dental knowledge are, first, how to preserve the teeth from decay, and when seriously diseased, how to arrest the disease and restore them to health, and with what material they should be filled, in order to enable them to perform their important functions properly; second, how and with what composition to replace the dentures when irretrievably lost. In deciding these questions, we shall not enter into a long and tedious argument for the purpose of sustaining any one mode of practice or material, or of condemning any other, but satisfy ourselves by placing the matter before the people in a common-sense way, enabling them to form their own conclusions on just premises.

The first point to be considered is the necessity of obtaining such a material for filling decayed teeth, or for artificial work, as shall be indestructible by the secretions of the mouth. The second consideration, is the adaptation of a filling, or construction of an artificial denture in strict accordance with nature, in the most artistic style, and with the highest finish and workmanship.

The peculiar and unequalled fitness of gold for filling teeth is so well and so generally admitted, that any arguments *pro* or *con* on our part, would be a waste of time. All that it is necessary to say is, that the people should be so informed in regard to this matter, that they will be enabled to select the very best operators, in order to secure to themselves the greatest possible benefit from the operation.

For the base of artificial teeth, many materials are used, and consequently the scope for argument is much greater in this department of dentistry; yet we are surprised to find some of the profession claiming perfection for gold, others for silver, platina, or continuous-gum work, or rubber, as the case may be, and thus mystifying the public, who are in a condition of doubt as to which is best, or whether any of them be suitable to the purpose.

We think this mystery can be best elucidated by the use of a little common sense, which is equally available in medicine, law, theology or dentistry.

In order to place this portion of our subject in the plainest manner before our readers, we will take these various materials *seriatim*, and explain the qualifications and disqualifications of each, for the purposes to which they are applied, basing our statements on the best chemical and medical authorities.

As to gold, the same remarks which we have made in reference to it as a material for filling, will apply to it when used as a base for artificial dentures in a still greater degree.

Gold of the proper quality is so ductile, so absolutely pure, and so adaptable and agreeable to the mouth, that its suitability to dental uses is never denied. It has been used for many years, and still holds its rank as a material equal to any in use.

The same arguments may be properly used in favor of silver, were it not for its liability to become oxidized by being brought in contact with the secretions of the mouth; however, this metal is but seldom used except for temporary work, and it would be much better if gold were used in its stead.

But the necessity for obtaining some material which more nearly approaches nature, both in purity and in adaptability to the natural contour of the face, acting upon the inventive genius of some of the original thinkers of our profession, led to the discovery of the *continuous gum* based on *platina*, the purest of all known metallic substances, and absolutely impervious to acids. The material of which this compound is made is the finest porcelain, which can be moulded to any shape, and is subjected to such great heat in the process of manufacture, that no trace of impurity can by any possibility exist in it.

In these respects we consider this substance to be superior to any other ever used by the profession as a base for full sets of artificial dentures.

As to the few objections which have been raised against this material, those that emanate from the profession may be dismissed with the remark that they are induced by their own incapacity to make it. The standard of scientific and mechanical ability to which it is necessary to rise in order to be able to prepare this difficult and beautiful work properly, is so high, that very few in the profession are able to reach it; and the masses take their revenge by inveighing solemnly against the use of the material which they are disqualified from preparing, and of whose valuable and important properties they have not the slightest conception.

The objection of the public is chiefly against its cost as com-

pared with that of other substances, and to this we answer that in our opinion the best material is the cheapest, and that this will always be the best if carefully and properly made.

The question of dollars and cents should never be placed in comparison with the importance of putting a substance in the mouth which shall be absolutely healthy, pure and innocuous.

The last material used as a base for artificial teeth, which we shall consider in this connection, is vulcanized rubber, more properly known as "*red vulcanite*."

Under any other circumstances we would not have considered this substance worthy of our criticism; but in view of the fact that in all parts of the country, dentists, with an amount of ignorance almost incredible, and the most astounding effrontery, are advertising it as the best material known to the profession, we cannot do better than make known to the public the true nature of the compound and the deleterious effects it sometimes exerts upon the human system, which may be made patent to any one who will investigate the subject as we have done, in the spirit of truth and justice.

About seven years ago, this article was first introduced into the profession, and we were among the first to use it in our own practice; we can, therefore, speak from experience and knowledge, and not alone from hearsay or the evidence of others, although there is sufficient of the latter to condemn it for general use in the minds of thinking men.

Our attention was early called to the fact that injurious effects sometimes occurred in patients who used it, and our mind was irresistibly drawn to the inference that such effects could only be attributed to its presence in the mouths of these sufferers. This naturally led us to make a strict and careful examination into the nature of the ingredients used in compounding it, which investigations resulted as follows:

We discovered that of the "*red vulcanite*" commonly used by dentists, no less than one-third consisted of the coloring matter—*bi-sulphuret of mercury*, or the vermillion of commerce; and that the balance was composed of sulphur and rubber in nearly equal parts. Medical testimony informed us that the bi-sulphuret of mercury produces the same effect upon the human system as pure mercury; we also found that in the process of mixing these ingredients, none of their properties are lost; and by actual experiment, that before and after vulcanizing, the weight of the substance is the same.

It therefore became evident to us that bi-sulphuret of mercury and sulphur—two substances confessedly injurious to health—were actual ingredients of the material when placed in the mouth;

and common sense, as well as science, taught us, that such effects as were perceptible in such mouths, could proceed from no other cause. These effects, as noted in our own experience, and declared by the evidence of many others, were, first, a great absorption of the alveolar and bony substance of the jaw; next, irritation of the mucous membrane, and a condition nearly approaching salivation; then gastric irritation, and finally, the general derangement of health consequent to such abnormal conditions.

*All of these symptoms of disease were removed by simply removing their obvious cause—RED VULCANITE; while a healthy condition continued, after replacing it by gold plate or continuous gum.*

One cause of these inflammatory conditions under "red vulcanite," is the fact that it is a non-conductor of heat, and this cause, as will be apparent to any physiologist, is sufficient to produce the worst results.

One reason for the unaccountable success of this article, is the fact that it has been backed in its progress by a wealthy and powerful company, which has made it for the interest of unscrupulous and ignorant dentists, through the newspapers and otherwise, to educate the public mind in the belief that it is the best material to be used, thereby creating a popular demand for it, which has compelled many of our best dentists, who absolutely despise the article, to use it. If the public, after being informed in regard to this matter, resolutely refuse to use this article, both the company and the profession would be soon forced to abandon it to its merited fate.

In conclusion, we would state, that if, after this plain and truthful exposition of the various merits and demerits of the substances used for artificial dentures, the public, who alone are sufferers, will permit cheapness to induce them to place in their mouths an unhealthy compound, in preference to pure and healthy substances, they alone are to blame for whatever painful results may occur—the profession may wash its hands of all responsibility—those who, being warned, still persist in their errors, can only thank themselves for the consequences, however serious.

W. B. ROBERTS,  
55 Bond Street, New York.

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#### TEETH EXTRACTED WITHOUT PAIN.

By the use of the above or similar headings to dental cards in newspapers and circulars, the people are made to think that a new anesthetic agent has been discovered, by which teeth can be extracted without pain. As the public mind is being directed

to this subject, it may be well to say a word about it. The agent referred to is nitrous oxyd gas, or substantially what has for a long time been known to the world as "*laughing gas*." The difference between the old "*laughing gas*" and the nitrous oxyd, now being used for anæsthesia, is its purity. More care is now taken to obtain the gas in a perfectly pure state. Its anæsthetic properties were first discovered by Sir Humphry Davy near the close of the last century, but was never put to any practical use by him.

In 1844, Dr. Horace Wells, a dentist of Hartford, Conn., manufactured and inhaled it for the purpose of having a tooth extracted. The anæsthesia produced was perfect, and the tooth was extracted without pain. The anæsthetic properties of chloroform and ether were discovered a few months later. The action of these agents being much more continuous than that of the gas, they were immediately adopted into hospitals for surgical operations, and the anæsthetic properties of the nitrous oxyd gas have been almost entirely overlooked until within the last few months.

From this brief and imperfect history it will be seen, that instead of this being a new agent, its introduction into the dental profession at the present time is only a sort of "*second birth*." As this agent may be quite extensively used by the dental profession to produce anæsthesia, it may be well to say, that the importance of obtaining a perfectly pure nitrous oxyd gas for this purpose cannot be over-estimated, for on its purity depends, in a very great degree, its safety to health and human life. This gas, when pure, contains the same component parts as atmospheric air, differing only in its proportions. Atmospheric air contains 1-5th oxygen and 4-5ths nitrogen; whilst nitrous oxyd gas contains 1-3d oxygen and 2-3ds nitrogen, being about 13-100th parts more oxygen to a given quantity than the common air we breathe.\*

To obtain pure nitrous oxyd gas, it is necessary to procure a pure article of nitrate of ammonia, from which to make it; next to secure a proper apparatus for generating and washing it. On these two steps much depends; for, if the ammonia be impure, or the apparatus for producing it imperfect, the result will most likely be undesirable. Nitrous oxyd gas is obtained by heating nitrate of ammonia in a glass retort to a few degrees above its melting point, a continued heat causing it to evolve a vapor containing nitrous oxyd gas, chlorine and nitric acid vapors. The last two agents in this combination would be deleterious to health, and perhaps dangerous to life, if inhaled

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\* Authors differ somewhat as to these proportions.

in quantity sufficient to produce anesthesia; hence the necessity for separating them, which is done by passing the vapor obtained into a body of water, which takes up the chlorine and nitric acid vapors, and allows the gas to pass through the water into a receiver, when it is ready for use. The gas thus obtained, if pure, will be entirely colorless and of a slightly sweetish taste. With this gas, it is claimed by its advocates, that but little danger need be apprehended from inhalation, if it be judiciously administered to those having no physical defects which forbid its use.

As yet, it is not known that any death has occurred from its use, but *any* agent capable of producing so sudden a change upon the human system as this, should never be used except with the greatest possible caution. Time only can determine its safety. As dentists have to manufacture this gas themselves for use, the public should be careful to receive it at the hands of those only whose chemical knowledge is sufficient to enable them to understand the nature of the agent, and whose medical knowledge will enable them to determine when its use is, and is not, admissible.

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#### LIFE INSURANCE.

[When a man assumes the responsibility of the head of a family, there is no duty more binding upon him than to provide for his own household a comfortable support. This duty no man can shirk or ignore; but while it is the duty, it is also the desire of every honorable man, not only to furnish this support during his life, but also to lay up in store, in case of his death, enough of this world's goods to enable those he leaves behind, to enjoy the same advantages after his death as during his life. Says the N. Y. *Commercial Advertiser*, in speaking of this subject:]

There is something startling in the thought that in our large cities only three out of every hundred persons engaged in mercantile pursuits are fortunate enough to retire with a competency, or bequeath pecuniary independence to their families. The pathway of commerce, on the land no less than on the sea, is strewn with the wrecks and remnants of craft which once as stoutly breasted the storm and rode out the gales as any that now fling their proud pennants to the breeze. Of the merchants who, ten or twenty years ago, controlled the business of our country, and seemed certain of amassing fortunes, how few to-day retain a name and a place among our men of wealth!

*Rari nantes in gurgite vasto.* For every one we can call to mind as having retired rich, thirty can be named who have either sunk like lead to the bottom, or by almost superhuman efforts and sacrifices, have only been able to keep their heads above the surface.

Comparatively few of our business men are so secure in their financial position, but that their sudden death would make poverty the portion of their wives and little ones. Let the grim messenger summon away the husband and father, and these his innocent dependants are in a moment sent adrift upon a sea of troubles. For this addition to the sum of human misery there is no excuse. If man is a responsible being, for nothing is he more justly accountable, socially speaking, than for the provision he makes or neglects to make for the family he may leave behind him; and so long as a policy of Life Assurance is within such easy reach, no man can shift from his shoulders the responsibility of seeing to it, that at his death, his family shall not become pensioners upon the public. Nor has any man a right to expect from the world at large, a more practical interest in his family than he is willing to manifest himself. We cannot help looking with qualified sympathy upon losses by fire, which so easily and cheaply might have been provided against. When a night of conflagration has swept away the accumulation of years, we congratulate the man who is insured with much deeper sincerity than we feel when we condole with him whom the fire has found unprepared and unprotected. And this is simply natural and reasonable. If it were otherwise, prudence and forethought would be at a discount, and improvidence take its place among the virtues.

The same principle holds good in Life Assurance; only it applies with greater force. A loss by fire may be, in time and by the putting forth of energy, to some extent made good. Years of subsequent effort may take the place of a policy, in restoring that which the flames have devoured; but in Life Assurance, account is made of but one loss—and that is total and irremediable. The man whom death finds uninsured, has never another opportunity to make up for his neglect or supply the terrible deficiency. In losing him his family lose not merely happiness and comfort, but hope itself dies out as they contemplate the bankruptcy, as to temporal things, which haunts and horrifies them. Nor can they count with certainty upon true sympathy from any source. If no Life Insurance policy stands between the bereaved family and the cold charity of a selfish world, that world assumes a more repellent selfishness and its charity grows colder still. Who that loves his wife and little

ones, can contemplate unmoved the possibility of such a future for those he leaves behind? Yet such a future is manifestly in store for the families of a majority of the merchants of this great city and for the families of nearly all our salaried and professional men; excepting so far as Life Assurance has been availed of! What a fearful thought, and how dreadful a reality!

What a beneficent provision, then, is that whereby not only the smallest savings from a limited income may be repaid with compound interest, but may become the guaranty of comfort, luxury, and fortune itself to those whom we love better than life.

[We have given the above extract, believing that every one who reads it will appreciate the good sense it contains, thank us for giving them an opportunity of reading it, and we hope profit by its timely admonitions. We can think of no act which a man can perform that is more unselfish, and that gives a more earnest assurance of his regard for those who are dependant upon him for support, than to set apart each year from his income, and place forever beyond his control, a given sum for their support when he is dead. The system of Life Insurance has reached such perfection at the present day, that there is probably no investment which a man can make whereby he can as surely provide for the support of his family when he is gone, as by a policy in some good and responsible Life Insurance Company.]

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#### PUBLISHER'S NOTICE.

In assuming the publication of the **PEOPLE'S DENTAL JOURNAL**, I desire to call the attention of the profession to the subject of its circulation. It now enters upon its second year, so that it may safely be considered an established institution. The volume just completed contains a series of articles so well adapted to the comprehension of the public, on matters pertaining to the teeth, that they have called forth the warmest approbation of many prominent members of the profession; and we can safely assert, that such an amount of information on this subject has never before been published for general reading.

It is intended that the second volume shall be as valuable, and, if possible, more so than the first. Articles from others of the best writers, not only in the Dental profession, but in its kindred science, that of Medicine, have been promised, with also an occasional article on some other subject of general interest; in fact, it is intended to make the Journal a valuable medium of communication between the profession and the public.

Some of our brethren have stood aloof from it, fearing that it was, or might become, an advertising medium for the office from which it was issued. The dental card of the former publishers may have led to this belief. But all may rest assured, that it is not the intention to make it the organ of, nor publish it in the interest of any office, but for the good of the profession and the public. Its pages are always open to well written articles from any who may choose to favor it with their contributions.

In order, however, that the Journal shall fulfill its mission, viz., that of disseminating among the masses information pertaining to the teeth, we need the hearty co-operation of the profession by encouraging its circulation among their patients. Dentists desiring 50 or 100 copies, will be supplied at a liberal deduction from the subscription price.

All communications, intended for publication, should be addressed to the editor, and those relating to subscriptions, or other business, should be addressed to the publisher. L. P. H.

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#### **DEATH OF DR. CREIGHTON.**

The announcement of the death of Dr. S. T. Creighton, one of the former editors of this Journal, will be read with regret, both by the dental profession and the public. Although his connection with the Journal ceased with the first volume, we had the promise that contributions to its pages from his vigorous pen should be frequent.

As his death occurred as the last form was being made up for press, we have only room for the resolutions and this brief notice.

A full meeting of the Dentists of Chicago was held at White's Dental Depot, on Monday evening, the 4th instant, at which the following resolutions—presented by Drs. Allport, Dean and Young, committee—were unanimously adopted:

*Whereas*, It has pleased an Over-ruling Providence to remove from our midst, Dr. Samuel T. Creighton; therefore,

*Resolved*, That in his death the Dental profession has lost one of its most energetic and conscientious members—the poor, a warm-hearted and generous friend—the church, a worthy and active member, and Chicago, a most exemplary and upright citizen.

*Resolved*, That while we sympathize deeply with his family in their bereavement, we rejoice that they have the consolation of knowing that he had the Christian's hope of a glorious immortality.

*Resolved*, That the Dental profession, as a token of respect to his memory, will attend his funeral in a body.

*Resolved*, That the Secretary of this meeting be directed to hand a copy of the above resolutions to the family of the deceased, and to request their publication in the city papers and the various Dental Journals of the country.

S. R. BINGHAM, *Secretary.*

GEO. H. CUSHING, *Chairman.*

## BOOK NOTICES.

A MANUAL ON EXTRACTING TEETH. By Abraham Robertson, D.D.S., M.D. Philadelphia: Lindsey & Blackiston.

The publishers have favored us with a volume of 198 pages, bearing the above title.

As the author is well known to the dental profession as a clear and practical writer on subjects pertaining to dentistry, the simple announcement of such a volume from his pen is sufficient to create a desire on the part of the profession to read it.

In his introductory remarks, the author very properly says, that a knowledge of the anatomy of the parts involved is the foundation of all correct surgical operations; hence, no one is properly qualified to extract teeth without a distinct and definite knowledge of the teeth and parts surrounding. He then devotes thirty pages to an anatomical description of the teeth, gums and the muscles concerned in mastication; treats of the pathology of toothache, describing its various forms, showing when teeth ought, and when they ought not, to be extracted. He then gives a description of the different kinds and forms of instruments to be used in extracting teeth, together with the proper mode of applying and using them, and closes with a chapter on anæsthetic agents.

No one can read this work without being impressed with the idea that simple "ingenuity" (which is of course always desirable) and the power to *pull*, are not the only acquirements requisite to qualify one to extract teeth, much less to practise the other departments of dentistry properly.

This is a plain and practical work, and by far the largest and most complete treatise on the subject ever published in this country. It should be found in the library of every dentist. For sale in Chicago by J. R. Walsh, and at S. S. White's Dental Depots in Philadelphia, New York, Boston and Chicago.

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DR. E. A. BOGUE, now traveling in Europe, expects to resume his practice in this city in early spring.

The *publisher* takes the liberty of sending this No. to quite a number of persons who are not subscribers, hoping that their intelligence will appreciate the importance of having such a Journal, and induce them to subscribe for it.

BOUND VOLUMES of the Journal for 1863 are now ready, price \$1.00. This makes an excellent work to lay upon the table of any dentist, for the perusal of patients while waiting for operations.

H.

**OUR ADVERTISEMENTS.**

We call especial attention to MRS. BLACKALL'S GYMNASIUM.

Persons wishing LOANS NEGOTIATED or REAL ESTATE bought or sold, will always find in J. L. Lee, a man thoroughly posted, reliable and of strict integrity.

The N.Y. EQUITABLE LIFE INS. Co., of Chicago, represented by E. C. Wilder, is regarded amongst moneyed men, as one of the most safe and honorably conducted institutions of the kind in the country.

During a residence of nine years in Chicago, we have had PIANOS from four different manufacturers. None, however, have given so good satisfaction as the one manufactured by Hallet, Davis & Co., and purchased of W. W. Kimball.

C. E. Wiswall, has been long and favorably known to our citizens as a SHOE DEALER. He has a large assortment of the very best stock to be found in the Eastern manufactories ; and we always prefer trusting his judgment, in matters pertaining to the *understanding*, to our own.

We again invite especial attention to GROVER & BAKER's establishment, where, if you wish, you can obtain a low-priced Machine, which combines all that is *practical* in the highest priced ; and those who are using them say that no better Machines for family use can be found than Grover & Baker's.

The name of Hesler is a household word in Chicago ; consequently, we do not need to inform our readers, that his elegant rooms are the place to procure a capital Photograph, from *carte visite* to life size ; but we do wish to state, that if our citizens desire to see the most beautiful improvement yet made in the art, to call and examine his "ARGENTOTYPES"—something entirely new, combining all the excellences of the daguerreotype with those of the finest ivory painting : in a word, they are *perfect gems of art*.

## REAL ESTATE IN CHICAGO.

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**J. L. LEE, 66 Clark Street,**

Will give his personal attention to the Purchase and Sale of Property in Chicago. Also, will

Loan Money at Low Rates and on Long Time.

# THE PEOPLE'S DENTAL JOURNAL.

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APRIL, 1864.

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## A CHANGE.

It will be seen by referring to the title page of the JOURNAL, that a change has been made in its management, and that Drs. HILL and RICHARDSON will hereafter be associated with us in its editorship. As our readers, doubtless, will be interested to know the reasons for this change, we will indicate them in a few words.

The direct object in view in publishing the PEOPLE'S DENTAL JOURNAL, has been to supply a medium of communication, long needed, between the profession and the public, "wherein to diffuse useful information in regard to the value of sound and healthy teeth; to point out the necessary means of securing the proper arrangement of children's teeth; the causes that produce decay of the teeth; the necessity of constant care in keeping the teeth clean, together with the means of accomplishing it; to call attention to the importance of having the teeth *properly treated* and filled when diseased, as well as to the proper method of setting artificial teeth, when the natural ones are *no longer of use*,—in a word, to set forth briefly and practically, all that is needful to keep the mouth in a healthy and working condition." In doing this we have endeavored to furnish the reader with such information in regard to his teeth, and if a parent, with regard to those of his children, that he would more fully appreciate their value, know better how to take proper care of them, and also be more fully prepared to discriminate between the *real* dentist and the impudent pretender.

To accomplish this, we invited the cordial support and co-operation of all in the profession who indorsed our object. Some of the more liberal at once seconded our efforts, and from the first issue to the present number, have contributed freely to its pages, and have said and done all in their power to encourage our undertaking. For these acts of friendship we desire to ex-

*A Change.*

press our warmest thanks. Some, however, whose acts are ever prompted by *selfishness*, and who do not understand how it is that any act can be performed except from mercenary motives, look upon the Journal as an *advertising medium*, put forth solely to increase the private practice of its editor, and consequently have done nothing to encourage us. Another class, who know full well that they are quacks, and that their practices will not bear criticism or exposure, have considered themselves aggrieved, and have done all in their power to impair the usefulness of the Journal, among their patients and others, by misrepresenting the editor, and attributing the same motives in its publication, as the class before mentioned.

We have expected, from the first, to give offense to some,—in fact, if plain talk will offend and help to bring into disrepute, and to rid our profession of the miserable set of *camp-followers* and shams, who infest it, and are eating out all manliness from our craft, or are hanging, like so many mill-stones, around the necks of the true-hearted and earnest workers, who are seeking to win for their profession an honorable position among the recognized and most useful vocations of science and art, then do we desire to offend them. Still we have not intended to publish any article that we felt would not be indorsed by those in the profession whose opinions we respect. In some instances we have published articles from writers of established reputation, but, at their own request, withheld their names. To some of these, exceptions have been taken, and some *talk* has been occasioned, and a construction has been put upon them which was entirely unwarranted. We have simply to say, that if any of our friends have felt aggrieved or annoyed, we are sorry, for there has been no wrong intended; but in publishing such articles, we merely wished to put the *true* professional man on his guard against the “appearance of evil,” in the imitation of practices universally pursued by quacks.

But as to the motives that prompt us in securing the services of the gentlemen whose names appear as editors. Our first object was to identify them more prominently with the Journal, and to interest them personally in its success, which would induce them not only to furnish more liberally material from their own pens, but which would secure through their influence other contributions to its columns, thus further enhancing its influence and usefulness.

In the second place, we wished to "divest" the JOURNAL, in the minds of all candid men, of the imputation of selfish and mercenary ends, by some, heretofore, ascribed to its editor, and if possible, place it before the profession and the public in such a form that there could be no reasonable objection made to it.

With this change we do not expect that quacks will abate their opposition, or cease their effort to place the Journal in a false light before the public, for they well know that the addition of the names of these gentlemen, so well known to the profession as men of standing and integrity, of marked professional ability, and talented writers, bodes no good to them. But it is hoped that the Journal may receive a generous indorsement from all true dentists, and a hearty support from the people, for whose good more especially it is published. A.

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## THE FIRST OR TEMPORARY TEETH.

*A few Words addressed to Parents.*

BY J. RICHARDSON, D.D.S.

In a former number of the PEOPLE'S DENTAL JOURNAL, we offered some thoughts in reference to the importance of preserving the first or temporary teeth of children in good, serviceable condition until the period when they are usually, by the processes of nature, replaced by the second or permanent organs. It may not be amiss, perhaps, to recapitulate, very briefly, some of the considerations then presented; after which we shall endeavor to direct the reader in some of the means by which the preservation and retention of these teeth may be effected.

I. Their importance as *organs of mastication* can hardly be overestimated. From the time when the eruption of the first teeth is completed, say from twenty-four to thirty months, until the replacement of the last of these by the permanent set, a period of from eight to ten years is embraced, throughout which they are, in varying degrees, concerned in one of the most important functions of the economy, that of *digestion*. During the three or four years following the complete eruption of the temporary teeth, the child is *wholly dependent* on them for purposes of mastication. It is plain, therefore, that this preliminary act of digestion will, in a great measure, be influenced by the condition of these organs. If in a serviceable state, the requirements of the system in this important particular will be subserved. But if they be defective, the preparation of the food, for all the wants of the system, will be imperfect and inadequate in proportion to the number of these teeth prematurely lost, or

to defects which interfere with their proper exercise, as where they are broken down by decay, or rendered so sensitive from the same cause that every effort to use them induces paroxysms of pain of greater or less violence. Under any of the conditions last mentioned, the food is introduced into the stomach in a condition ill calculated to promote easy, rapid, or complete digestion. It would be impossible to fully estimate the evils which may be entailed by this tax upon the organs of digestion if long continued. A child of unusual constitutional vigor might pass this period without any obvious impairment of health, but a large majority at this tender age will not only suffer present and conscious injury, but future and permanent enfeeblement of the bodily powers. Continued or periodical disorders of the bowels; flatulence; abdominal pains; general emaciation; fretfulness; capricious appetite; nervous complaints; anemia, or defective and impoverished blood; affections of the brain and other vital organs;—these are but a few of the *obvious* or *apparent* signs of the evils induced primarily by crude and defective preparation of the food in the mouth for its subsequent conversion into proper material for the upbuilding of the child's physical organism. Though not immediately cognizable, yet the defects and perversions of *nutrition* may, and doubtless in thousands of unsuspected instances do, develop constitutional atints, and confirm and exaggerate constitutional infirmities, at a comparatively early period, that might have remained dormant or comparatively harmless through a long series of years under the favoring circumstances of a watchful observance of the laws of health in childhood. The period in which the temporary teeth are brought into active service, is, more than any other, one which determines the future well-being of the little one committed to your care. It is eminently the period of active growth and development,—the *transition* stage between the feebleness of infancy and the strength of maturity, when all the functions of organic life are most active, and all the vital powers of the perfected organism are rapidly unfolding. We need, therefore, hardly insist that the healthful or unhealthful play of all the functions at this critical period must impress the child's system in after life for good or evil. We are thus earnest and somewhat elaborate in the review of this portion of our former article, because the subject seems to us of such overshadowing importance and concern to those charged with the responsibilities of parentage or guardianship, that our regret is, not that we have said so much, but, that space does not permit us to say more upon a subject of such paramount interest.

II. Second only in importance to the considerations just offered respecting the preservation of the temporary teeth, are those which relate to the growth of the jaws, and a regular and symmetrical arrangement of the succeeding or permanent sets. The jaws grow and expand very much in the same ratio with other parts of the bony system, and it is in this way only that

adequate room is provided for the increased size and number of the permanent organs. That this expansion may go on uniformly and progressively there should be no interruption to the *nutrition* of all the parts associated with these organs during the time of their presence; and as the continuance of each individual tooth furnishes in part the essential conditions for the supply of nutritive elements to all the parts contiguous, it is plain that not a single one of these teeth can be prematurely removed without modifying or checking the growth and expansion of the jaw at that point. The extent to which the expansion of the jaw will be thus retarded will of course depend upon the number prematurely lost and the time of their removal, being greater where a considerable number are absent, and where they have been removed at an early period. The consideration of this portion of our subject might be profitably extended, but we are admonished to desist, indulging the hope that enough has been said to engage the reader's attention and provoke reflection.

III. Excluding from our minds the weightier matters heretofore discussed, one other reason remains why early and continued attention should be directed to the preservation of these first teeth,—a reason which appeals directly to the heart and the affections,—a reason founded in our common humanity. There is perhaps no endurable suffering more poignant than that of tooth-ache, and children, from their peculiar nervous organization, perhaps suffer, most acutely from this affection. We have seen strong men and women, pale, trembling, and helpless with physical prostration under this terrible infliction of only a few hours duration, and can we suppose that the little sufferer endures less, whose responsive nerves quiver in every fibre with inexpressible agony under the same scourge? Means of relief may palliate,—cure temporarily, perhaps. But sooner or later the paroxysms return,—remedies fail, and the little sufferer, worn out and sick to the very heart, is brought trembling and terror-stricken to the dentist to endure that still more dreaded scourge, *extraction*. When it is all over, your little one may forget the sleepless nights of suffering, and the days of agony from tooth-ache, but the glitter of the cold, unrelenting steel, the sudden wrench, the torturing throes of agonizing pain, the streaming blood, these are memories burnt as with a hot iron into the brain, and endure when other memories of sufferings, voluntarily borne, fade away. It is such sad experiences as these that invest every dentist, however gentle, humane or considerate he may be, in the minds of the little victims, with the character of a merciless Ogre who only lacks the opportunity of devouring them bodily, and begets in them ever afterwards a causeless and dangerous apprehension of suffering and torture in all future necessary operations on the teeth.

Every consideration, therefore, of affection, interest, and humanity, conspire to give value and importance to those means

which shall secure the child's highest interests in respect to these teeth. The instrumentalities are in themselves simple, and may be included under two general heads:—*Preventive* and *Restorative*.

*Preventive Means.* The chief, and indeed almost the only, preventive means necessary to be employed, is thorough and absolute *cleanliness*. This is ordinarily best effected by frequent ablutions with a brush and simple tepid water. The brush should not be harsh or stiff enough to abrade the surface, but sufficiently so to induce firmness and hardness of the gum by moderate stimulation of the mucous membrane, and also to remove effectually all extraneous matters from all portions of the teeth accessible to the brush, and especially from the little pits and grooves upon the masticating surfaces of the molars or grinders. This cleansing process should be commenced as soon as the crowns emerge from the gums. The child also should be early instructed in the use of the brush. It will be a divided labor at first, but with patient assistance and instruction, the child will soon acquire aptness and intelligence in its proper use. It should be employed at stated intervals, and these as nearly as practicable should be immediately after meals, and before retiring at night, and no trivial circumstance should ever supply a pretext for its omission. Thus a *habit* will soon be acquired that will strengthen with indulgence, and what was at first perhaps reluctantly done, will in time be resorted to as a source of positive pleasure and gratification. Aid your little one in its use by judicious appeals to its childish pride; stimulate it by all the little arts which make obedience to your wishes a pleasure; inculcate it as a *duty* with the loving aspirations you would fold its little hands in prayer, for cleanliness is nearly allied to goodness; and, if need be, *enforce* it.

In aid of the brush, a quill tooth-pick is a valuable auxillary, inasmuch as parts not accessible to the brush and very liable to decay, as the spaces between the teeth, can be better reached by it. Or the same thing can be accomplished by drawing between the teeth a piece of thread or other suitable substance, though we are partial to the habitual use of the pick.

The occasional use of some antacid solution will promote the health of the teeth by neutralizing any acids present in the mouth, and this can be used perhaps most advantageously just before going to bed, as the action of acids on the teeth is most destructive during sleep. For this purpose the mouth may be rinsed with a solution of magnesia, or prepared chalk, or dilute lime water.

A dark green stain sometimes collects, at an early period, on these teeth, especially upon the upper front teeth near the gum. This deposit has the property of dissolving the bone of the tooth, and is often very destructive, producing a species of decay difficult to repair by filling, as the cavities are usually very sensitive and ill-shaped. On the first appearance of this

stain, the services of a dentist should at once be secured for its timely removal.

With a faithful observance of the directions here given, the temporary teeth, if associated with a sound and vigorous constitution, may, in many cases, be preserved throughout in good, or at least tolerable, condition. But in no case should implicit reliance be placed on the means recommended, for decay of the teeth is often so obscure in its development and location, and so insidious in its progress, that it may exist to an extent sufficient to endanger the tooth without detection by any ordinary modes of inspection. Defects requiring the aid of a dentist to detect and remedy, bring us to a consideration of the

*Restorative Means.* The parent and dentist must be co-laborers in the work of saving these teeth. Neither, alone, can accomplish all that is desirable. You have only discharged your obligations to the child in part, when you have done what lies within your province at home. The child should never pass beyond its second year without a careful inspection of the teeth by a competent dentist, and these examinations should be repeated at intervals of three or four months,—never longer than six. If operations are not required, it will be a gratification to know it—if defects exist, they can be repaired at an early period with much better results and far less inconvenience and pain to the little patient. It is not thought necessary to enter into any detailed description of the methods of filling or otherwise treating these teeth. Your duty has been pointed out, and when you have discharged all your obligations faithfully, you may safely and hopefully trust to results when you have invoked the aid of a skillful and conscientious dentist.

TERRE HAUTE, March, 1864.

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## WHAT OUGHT TO BE READ AND REMEMBERED.

BY WM. A. PEASE.

It is the duty and desire of every honest dentist to preserve the natural teeth. To that end his studies and his labors are directed, and he feels a conscious glow of self-approval, and seems to hear a whispering of "well done, thou good and faithful servant," when he succeeds, and there is a corresponding degree of mortification when he fails. This feeling is his own, a part of his reward, his incentive to exertion; and it is wholly irrespective and independent of the opinion of the patient as to the value of the operation; who little knows or cares for the amount of thought, perplexity or fear that is constantly occupying the mind of the dentist during many of his operations, so long as he is comfortable and subject to little or no inconvenience. It is this fixedness and intensity of attention, this anxiety, this consciousness of the

movement of every muscle or alteration of expression on the part of the patient, while at the same time he is watching every step of the operation, and guarding against everything that may interrupt or interfere with it, that begets that nervousness to which the dental operator is so frequently subject. This sympathy with the patient is constant, and not occasional, as with the surgeon, though depending as to degree upon the irritability of the patient, or the difficulty of the operation.

These are some of the difficulties and inconveniences attending the practice of dentistry, and they are merely glanced at, here, to show that the labors and responsibilities at the chair are not so light or irresponsible as many suppose. The dentist really desires to succeed, and he labors, not only to do his part well, but, also, to induce the patient to conform to all those conditions that are directly or indirectly necessary to success. He knows the difficulties of every case, how much is to be done, what is to be guarded against, whether success is insured by his operation, or whether it is in part dependent upon the care and conduct of the patient. Moreover he wishes all of his operations to be simple and uncomplicated, because it is less expensive and better for the patient, and more profitable for him. Almost all operators make their greatest profits on average operations; they cannot, like the lawyer, make their highest fees from their highest skill and greatest responsibility. This is wrong, but it is generally true, as almost all difficult cases are undertaken for the benefit of the patient, with little expectation of a pecuniary benefit commensurate with the expenditure of skill, time and material.

The advantages of average operations to the patient are so decided that I propose to call attention to them. A small cavity is much more quickly and easily prepared for the filling than a larger one; and the tenderness or pain attending the preparation are proportionably less, if not entirely absent, and there is no danger of exposing the nerve. The filling is inserted quickly, with little or no weariness or inconvenience to the patient, the tooth is not mutilated by cutting away a portion to secure it strong, healthy margin for the filling, the gold does not show, a is less liable to come out from breaking away of parts of the tooth, the patient does not suffer from taking hot or cold drinks in the mouth; there is no danger of subsequent irritation, soreness of the tooth, or gum-boils, and the cost of the filling is small. This is the only way by which permanent fillings can be inserted; and the advantages are so great, that it would seem they could not be lightly disregarded.

The disadvantages of a large filling are precisely the converse of these, plus the danger of more or less injury to it from moisture and inability to control the patient. The dentist takes charge of such cases in the same self-sacrificing spirit that a physician does when a person by self-abuse or neglect has become critical. He does everything he can to mitigate urgent symptoms, to make

the patient comfortable and give him the use of his teeth as long as possible; and he feels a good deal of self-satisfaction in reflecting that his resources enable him to accomplish much. Tooth-ache can be cured, the nerve destroyed and removed from the tooth and roots, its place can be filled with gold, gum-boils can be healed, as well as diseases of the jaw-bone, or new bones can be made to grow, but all of these operations are tedious, unpleasant, and more or less painful; and in most cases are only made necessary by carelessness or neglect on the part of the patient. But, after all this has been accomplished, it is not absolutely certain that pain may not eventually return, or some other form of disease supervene. If people were universally robust and well, there would be little danger of such an accident, but, unfortunately, so many people for whom we operate have impaired health, that the danger, although not imminent, is appreciable. This is especially the case with women—the most healthy of whom are subject to so many disarrangements, which temporarily lower their vitality, that an occasional irritation at the root of a tooth has to be quieted. It is unnecessary to explain why this is so; it is a physiological fact which we must accept as unavoidable, that furnishes another cogent reason why the teeth should not be neglected until they ache or the nerve becomes exposed. Much more might be said upon this subject, but it is hoped that, to those who value their natural teeth, and prize their ease and comfort, this is sufficient.

DAYTON, OHIO.

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## FAMILIAR CONVERSATIONS ON THE TEETH.

BY A. HILL, D.D.S.

### CHAPTER IV.

A. Our conversations being interrupted by the close of your last article, I beg to call your attention to the subject once more, and trust we shall find the interest without abatement.

Will you be so kind as to describe the situation and structure of the vocal organs, in order to assist me to understand, more perfectly, the aptness of this comparison.

B. This I will do at once, and with great pleasure. At the root of the tongue, lies a minute, semi-lunar-shaped bone, which, from its resemblance to the Greek letter U, or *Upsilon*, is called the *hyoid*, or u-like bone. Immediately from this bone, arises a long, cartilaginous tube, which extends to the lungs, and conveys the air backward and forward in the process of respiration.\* This tube is called *trachea*, or wind-pipe. The upper part of it, or that immediately connected with the hyoid-bone, is called the *larynx*. It is this larynx, that constitutes the seat of the voice.

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\* Vide Good's Study of Medicine.

The tube of the larynx, short as it is, is formed of five distinct cartilages, the largest, and apparently, though not really, the lowermost of which, produces that acute projection, or knot in the neck of males, known in common language as "Adam's apple." This is not a complete ring, but is open behind; the open space being filled up, in order to make a complete ring, with two other cartilages of a smaller size and power; and, which together form the *glottis*, as it is called, or aperture, out of the mouth, into the larynx.

The fourth cartilage lies immediately over this aperture, and closes it, in the act of swallowing, so as to direct the food to the esophagus, another opening which leads to the stomach.

These four cartilages are supported by a fifth, which constitutes their basis; and is narrow before, and broad behind, and has some resemblance to a seal-ring.

The larynx is contracted and dilated, in a variety of ways, by the antagonist power of different muscles, and the elasticity of its cartilaginous coats; and is covered over with a very sensible vascular membrane, which is a continuation of the mucous membrane of the mouth.

The organ of the voice, therefore, is the larynx—its muscles, and other appendages. And the voice itself, is the sound of the air, propelled through, and striking against, the sides of the glottis, or opening into the mouth.

The shrillness, or roughness of the voice, depends on the internal diameter of the glottis, its *elasticity*, *mobility* and lubricity, and the force with which the air is protruded.

Those animals only that possess lungs, possess a larynx. And such consist of *mammals, birds and amphibia*s.

Leaving the foregoing dry technicalities, consider it under the figure of a bagpipe. The lungs constitute the pouch, and supply the wind. The *trachea* is itself the pipe. The inferior glottis the reed, or mouth-piece, which produces the simple sound; and the superior glottis the finger-holes; and these, together with the teeth and lips, modify the sound into almost an infinite variety of distinct notes, at the same time giving them utterance.

A. How very beautiful, and at the same time, how curious, are nature's operations. Who knows but the old Scotchman who first invented the "bagpipe," took his hint from the structure of the vocal organs? I thank you for the particularity with which you have described them to me, and I shall give you my attention in order to obtain a more intimate knowledge concerning them.

B. We might say much concerning the structure of these delicate organs in man, as also other classes of animals. But as our chief business is with the teeth, and their relation to these organs in the human subject, we must needs confine our remarks to this department alone.

A. I think you said that the mucous membrane of the

mouth lined the air passages also, and that the shrillness or roughness of the voice depended somewhat upon the *elasticity*, *lubricity* and *mobility* of this mucous membrane. But pray inform me, what has all this to do with the teeth?

B. What has this to do with the teeth? I answer, *much every way*. A healthy state of the mucous membrane, lining the mouth, fauces, throat, etc., can only exist, where the teeth and gums are preserved in a healthy state.

One diseased tooth is quite competent to produce such inflammation of the surrounding parts, as to effectually change all these healthful relations, and where the case is an aggravated one, may involve the whole buccal cavity, and thus change the action of the glands entirely. This being the case, the fluids of the mouth are completely changed, and all the delicate relations of the parts so affected as to destroy, at least for the time being, the function of speech, or song.

Sometimes the mouth becomes feverish—the tongue dry, and coated—the tonsil glands swollen, and unnaturally large—the muscles of the face rigid and inflexible; and the entire series of organs upon which so much is depending, so sadly involved as to make the case one of serious interest.

A. True, indeed! I now recollect that a tooth extracted from my own mouth, produced all these disagreeable and painful symptoms. My voice was husky, my throat parched with fever, my tongue loaded with a heavy coating, and my whole system debilitated. But it struck me this was an extraordinary case, and by no means common.

B. Quite common, I assure you. And this the result of *one* diseased tooth only. What then, must be the effect, where the teeth are nearly all denuded by caries, and broken down even with the gum, with their ragged edges fretting the tongue, and delicate mucous membrane, and their roots in an ulcerous condition?

These stumps of teeth, are like so many splinters in the flesh, each one a point of painful irritation. Every little cold taken, is invited to locate in their vicinity, while the most intolerable *fætor* taints the breath, and mars the pleasure of social intercourse. Where now, is that indispensable *flexibility*, *elasticity*, and *lubricity* of the parts, so essential to a clear and musical voice, to say nothing of the power of distinct articulation?

A. But is it possible that the throat and tonsil-glands are affected in this way?

B. It is indeed possible, and not unfrequent. Cases are not uncommon, where inflammatory action, proceeding from diseased teeth and gums, extend not merely to the tonsil-glands, but to parts adjacent, involving the eye, ear, muscles of the neck, and sometimes the *antrum*, or cavity of the cheek-bones. It even extends to the shoulder and arm, producing temporary paralysis.

A. Can you account for this remarkable extension of disease in certain cases?

B. Yes, on the principle of *morbid sympathy*, which I endeavored to explain to you in one of my previous articles. And besides, there is what physicians call "*diathesis*," or a *peculiarity of constitutional temperament*. For instance, one person is predisposed to glandular swellings and glandular diseases of various kinds, by reason of a *scrofulous diathesis*. Another is predisposed to consumption, by reason of a *pulmonary diathesis*, and so on. So that diseases of all kinds are modified or aggravated by these constitutional tendencies.

Now suppose a case, where these peculiar tendencies prevail, and can you not see that a single spark is sufficient to kindle a blaze of inflammation? Bear in mind also, that a *point of irritation*, or a *weak spot* anywhere, always invites disease.

A. In these remarks I find the key of many a previous mystery. I have hitherto greatly wondered at the suffering of some of my friends, from causes so seemingly trivial. But I trust I shall be able in future to better appreciate their trouble, and sympathize with their misfortunes.

B. How then can the voice remain uninjured, where the circumstances are such as I have described? The only wonder is, not why so few suffer, but why the number is not much larger. And this would most assuredly be the case, were it not for the controlling and modifying circumstances above hinted at. But huskiness of the voice, arising from a relaxed and flabby state of the mucous membrane, or a harsh, ringing sound, resulting from its stiffness and rigidity, are exceedingly common. And the effort to relieve this state of things induces a cough, which not unfrequently terminates in confirmed *bronchitis* or *consumption*.

And you cannot fail to perceive, that where disease is superinduced by these causes, a cure is not to be effected by the use of ordinary medicaments. "*Troches*," "*gargles*," "*liniments*," —pill, powder or potion, will not cure, while the exciting cause remains untouched.

A. If your remarks are true (and I cannot see why they are not) it will account to me for the ill success which attends the ordinary treatment of this class of ailments. For I have frequently had occasion to remark, that diseases of the throat and bronchial tubes, are among the most reluctant, in yielding to the ordinary methods of medical treatment. And many cases assume the chronic form, and continue through life to embarrass their unfortunate victims.

B. It is an old adage, that "a knowledge of the cause and nature of disease, is one-half the cure." And I give you credit for your sagacity, in thus detecting the inappropriateness of such a treatment, which, accomplishing its utmost, can only palliate and relieve for a short time at best, inasmuch as the primary cause of all the trouble remains untouched.

A. The longer I live, the more importance I learn to attach to what are called "*little things*." And my obligations to you

increase as we advance, for developing this thought more fully in my mind.

B. Strictly speaking, there are no "*little things*." Nor is it easy to determine the relative importance of circumstances surrounding us. An *apparently* trifling incident, changes the whole current of a man's thoughts, and the whole course of his life. But can we call that *trivial*, which produces such stupendous results?

A spark, emitted by a little friction, explodes a magazine. A pebble, cast into a lake, displaces every drop of water in it. A drop of acid upon a plate of polished steel, may disfigure it forever. Even as one corrupt thought may kindle a flame of unholy lust, which shall burn, until body and soul are ruined.

But I must close these remarks, begging your pardon for this digression.

A. I cannot allow, that any apology is necessary for introducing these illustrations, inasmuch, as they seem to me to be apposite to the subject under consideration. A disregard of what are termed *small matters*, is a prevalent fault.

B. Your remarks are gratifying to me from the fact, that your mind seems to be deeply impressed with the force of these truths, which I have been most anxious to inculcate. And also from the consideration, that you are beginning to look upon the teeth, not as being so remotely related to the general system, as to be beyond the circle of sympathetic and reciprocal action, but as a class of organs *most intimately* connected with the *health, comfort, and social enjoyment of our race*.

The bulk of mankind are so profoundly ignorant of the relative value and importance of life's commonest blessings, that their irrecoverable loss can only teach them their worth.

"Our blessings strengthen, as they take their flight."

A thing must be known to be appreciated.

The very air we breathe, and which comes to us as a matter of course, and which millions enjoy without ever thinking of its value, can never be appreciated by us without much reflection, unless we are crowded in some confined apartment, where its essential health-giving properties are changed, and we are made to feel, that to breathe pure air is one of the greatest of all luxuries, especially where it is permitted to inflate a pair of healthy lungs.

To a person in perfect health, *eating* and *drinking* are among the highest animal enjoyments. But let the teeth be broken down by *caries*—let their delicate nerves be *fretted* by constant *exposure*—let the *gums* be *swollen* and *inflamed*, as is the case with thousands, then talk to me of the pleasure of eating! Further than this, let the poor patient be afflicted with *dyspepsia*, which is a frequent companion of ruined teeth, and see how even the little food which he despairingly thrusts into his stomach becomes his misery and torment. And finally, as he tries

to seek relief by social conversation in the company of his friends, his breath is so offensive that even his friends are obliged to turn their faces from him.

And the pleasure of social intercourse is marred by the harshness and inelegance of his speech, resulting from the loss of the dental organs.

To recapitulate—such is the relation of the teeth, both in health and disease, to the vocal organs, that where the one is cultivated and cherished, the other cannot consistently be neglected.

Freedom and elegance in speech—*volume, compass and sweetness* of voice in song, can never be fully enjoyed, where the dental organs are either imperfect, or destroyed.

Lessons in elocution or vocal music, to be successful, must be sustained by the health and arrangement of the dental organs.

Lastly, the necessary means for this purpose, on the part of parents, cannot safely be withheld.

NORWALK, Ct., Feb. 26, 1864.

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### ADDRESS

TO THE FIRST DENTAL SOCIETY OF CHICAGO, BY THE PRESIDENT,  
E. W. HADLEY.

*Delivered March 14, 1864.*

*Gentlemen of the Chicago Dental Society:*

In assuming for the first time, the discharge of my duties as presiding officer of your Society—the first regular association of Dentists in this great metropolis of the North-West, I deem it proper and legitimate to submit a few initial remarks bearing on the object and benefit of societies and organizations like ours, both to members and communities at large.

1st. The object of all combined effort, whether physical or mental, is, and should be, to ensure more complete and perfect results in any department of physics or science, to which each individual of the association is devoting his personal energies.

Thus, to use a masonic figure, while one brings stone, another brick, a third mortar, well tempered, and others lay the wall by the line and plummet, the temple of improvement will rise successfully, till the topmost stone is brought forth with shouting.

But, to drop the figure, let us inquire how to accomplish the most good, and attain the highest object of our association. I here remark interrogatively, is it not by the interchange of kindly thought? Courtesy of manners one to another? Carefully avoiding all jealousy in feeling or action, and cultivating the better powers of our being? Such are gentleness, goodness, forbearance, and charity; and allow me to say, "*the greatest of these is charity.*" This pre-eminent virtue will surely cover a multitude of our follies and faults.

In the details of our common calling, we shall naturally, *nay*, inevitably differ. But in all kindness, let not this difference alienate or interrupt the sincere wish that *all* should succeed, to that degree at least, which shall entitle them to honorable positions among the fraternity of our profession.

With commendable pride we all aim at individual excellence. This is right; but as no *one* can monopolize a profession, let this individual excellence honorably attained, be diffused in a spirit of genuine liberality through the profession, and the enlightened public will appreciate the efforts of us all to meet with combined skill their every want.

Again, the thorough and practiced Dental Surgeon makes no secret of his modes of operating or manipulating, even to his patients. For well he knows that none but the ignorant can be influenced by professional mysteries. Let our communications with each other, as members of this Society, and with those of our profession who are not connected with our organization, be characterized by generosity, frankness, civility; in fine, with all consideration consistent with the true gentleman.

This leads me naturally to the remark, that the influence which well conducted associations send abroad among the profession throughout the land, is by no means to be overlooked. The importance which we *know* belongs to our art, is more readily admitted by this union, and our brethren of other cities and towns see in us a determination to dignify the calling by mutual assistance to all honorable members in their efforts at progress.

In a word, the benefits of our Society may be made large by systematic *work*, in the diffusion of all we know of the art and profession of *Dentistry*.

Allow me, gentlemen, just here to quote from divine authority, (but with all reverence) yet with singular aptness, "In watering others, we shall ourselves also be watered."

One word in regard to the permanence of such societies as we have now inaugurated. Americans are prone to build *only* for the present, leaving the future to take care of itself. The farmer of the West, for instance, "squats" on his quarter section—hastily rolls the logs together for a house—chinks the walls with moss and mud—thatches the roof with poles and prairie grass—brings his family to this inhospitable shelter, with the apology, "*it will do for the present.*"

This, I grant, is in many cases the work of "necessity" which "knows no law." But in others, he is too eager to reap a rich crop for market, and thus *realize* with the outlay of little or no capital.

Not so with us. The formation of a society—a tabernacle—a dwelling-place for the family of our profession, whose rooms and places must eventually be occupied by others, who will be called in the future to fill our posts at the chair and in the labo-

ratory. In a work like this, we surely can see many reasons for deliberation.

Let the foundation be laid broad and firm, and ere you add one stone to the superstructure, look well if this temple will meet the wants and bear the criticism of our profession, when we are among the *departed*.

Patience, perseverance, and time, will mature our plans, and make them permanent, if laid carefully and correct. "*Festina Lente*," "Make haste slowly," should be our motto—for what is worth doing at all, is worthy of being done well.

Five—ten—twenty, nay, forty years soon pass, and although the shortest of these periods appears long when before us, look back on the longest and it shrinks to less than a span.

Disowning any attempt at, or thought of, dictation, in regard to the future conduct of our Society, I have endeavored to give you in brief, a few suggestions on associations, their object, aim and end.

Springing from good motives—conducted with earnest efforts from all—the results before enumerated will surely follow.

The field of usefulness is large, both in your private practice, and in connection with the Society just formed. You may plow deep and sow broad. The appliances for the cultivation of the art you profess, are ample. The scientific knowledge and mechanical skill of the last quarter century, elaborated especially for your benefit, are before you, and with such a capital none should despair of ultimate success.

To confirm my last remark, take a hasty look back, you gentlemen who can clearly remember just twenty years, and let me ask you, what was Dentistry even then? Look still another ten years into the past, and you will find ample cause for self-gratulation that *you commenced* the practice of *Dentistry* in the latter part of the nineteenth century; that you were spared the mortification of repeated failures, for the want of that very light and knowledge so brightly, so broadly beaming all around you at the present day.

And now, gentlemen, while I formally thank you for the honor conferred, in placing my name at the head, and making me your presiding officer for a short period, I cannot conceal the fact, that no superior attainments in the profession entitle me to this distinction, and I accept it only as a tribute to seniority of age and occupancy of this immediate field of our labor.

But at that period, so rough was the soil, I could scarce anticipate a subsistence, much less expect a golden harvest, either in honors or profits. With the limited means of improvement at hand, one could do little more than live, and you may be sure my case was not an exception.

Far from being discouraged, I struggled on in the face of many obstacles, with the hope that as our city improved, the profession would be encouraged, and take rank with kindred arts and sciences. As advancement in *all* arts surely follows

prosperity in trade and commerce, so our profession gained steadily in importance, and met every want of the community with progressive skill and energy.

And now, after more than twenty years of toil in what has grown around me to the dignity and consequence of a *mighty city*, I find myself surrounded by a "*Dental Society*," whose individual attainments in the profession may challenge the world.

In conclusion, permit me to say, that while I promise to preside over your deliberations with what little ability I possess, I shall look with confidence to the earnest support and assistance of my professional brethren who have so unitedly placed me here and I most heartily add the wish and the hope, that this Society, so happily begun, may continue—"NOT FOR A DAY, BUT FOR ALL TIME."

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### DENTAL HYGIENE,

OR, HOW TO SAVE THE TEETH FROM DECAY.

A PAPER READ BEFORE THE CHICAGO DENTAL SOCIETY.

BY W. W. ALLPORT.

THAT many diseases can be prevented by proper hygienic regulations as easily as they can be cured by medical treatment, is a principle well established in medical science. The common axiom of medicine, that the knowledge of what a disease is, constitutes half its cure, is not more true than that in order to know how to prevent a disease, we must know its cause. This knowledge no man can possess by intuition; it can be ascertained only by observation and reason. It is from facts observed, and statistics gathered, by medical men, that they have been convinced that certain diseases are produced by certain causes. We are taught by statistics that the mortality is far greater to a given number of inhabitants, and that the mean duration of life is much shorter in populous towns, than in rural districts, of the same climate. This shows that a city residence is much less conducive to health, than one in the country. We also know that, in the crowded and filthy wards of a city, certain types of disease are much more apt to prevail, and that individuals attacked by these diseases are much less likely to recover than those who reside in the cleanly wards with large yards surrounding their houses, where they are supplied with an abundance of pure air. Hence, we are drawn to the irresistible conclusion that cleanliness and pure air are important requisites to good health, and that filth and impure air are prolific and exciting causes of disease.

From observations often repeated, and statistics carefully collected, it has been ascertained that diseases may be engendered not only by crowding too many persons into dark and badly

ventilated rooms, but by the accumulation of filth and dirt. Whole columns of figures might be given to demonstrate the correctness of this position; but for our purpose it is hardly necessary. We will content ourselves with a single illustration.

It is well known by medical men, that at certain seasons, typhus fever is especially rife in densely populated and filthy parts of populous towns. Statistics show that in those parts of London where the population is one to every one hundred and eighty square yards, the proportion of deaths from typhus to the whole mortality is 131 out of 2,289, or about six per cent. of the whole; where the population is one to thirty-five square yards, it is 349 out of 3,428, or over ten per cent., nearly double the ratio in the less crowded district.

It has frequently happened that places once considered unhealthy have become proverbial for the health of their inhabitants, after a proper system of sewerage and drainage has been introduced. This is especially the case with our own city of Chicago. So fully have facts of this kind been established, that the proverb, "An ounce of prevention is worth a pound of cure," has become a favorite maxim all over the world. Hence the willingness of all large cities to submit to almost any amount of taxation for the prevention of disease or the removal of its cause.

These principles apply with as much force in dental as in medical science, and they have just as important a relation to the welfare of the people in the one case as in the other. It is as true of the decay of the teeth as of the many forms of disease which attack the more vital organs and demand the more immediate attention of the medical practitioner, that it is due to well known causes—and that in this case as in the other, to prevent the disease, we must remove its cause. Clearly as it seems to be demonstrated that disease is engendered by impure air and filth, we doubt whether there could be as many facts brought forward to substantiate this opinion, as can be adduced to prove that the premature decay and loss of so many thousands of teeth, is induced by well known chemical action, arising from the accumulation of filth between and around the teeth, which the patient himself can prevent, and which no one else can. Surely, the proverb, "An ounce of prevention is worth a pound of cure," is no more true in medicine than it is in dentistry.

And yet the above facts and principles, while they are appreciated and acted upon in the one case, are practically ignored and set aside in the other, by a large majority of people. Why should there be this difference? Is it because people consider sound teeth of no consequence? Is it because they care nothing for the inconvenience and pain caused by the decay and loss of the teeth? Is it because they are unwilling to be at any expense to secure a healthy condition of the teeth, while they readily pay thousands to preserve their general health? The very fact that

they do cheerfully pay large sums to the dentist when they become aware of the necessity of employing him, is of itself sufficient to give a decided negative to all such questions.

The truth is, that people do not fully understand the importance of *preventive* treatment in regard to the teeth; and this is because our profession has not taken the pains to enlighten and instruct them on the subject, as the medical profession has done in respect to the prevention of other diseases. We have something to learn in this respect from our brother practitioners of the older branch of medicine, and if we do our duty we have here a great work. Hitherto the dental profession has spent its energies chiefly in treating diseases of the teeth, and in reaching the highest point of professional skill and dexterity. We have been content to take the patient with his teeth already diseased, sadly dilapidated or hopelessly ruined, and to restore them to health by filling or otherwise treating them, or else remove them with as little pain as possible, and to supply their loss by the best artificial substitutes. This done, he has been sent away deeply impressed with the idea that he has been peculiarly fortunate in securing the highest skill in the profession. No pains have been spared in putting in hard filling and polishing them till they equal the enamel itself in hardness and finish. His teeth have been cleansed till they rival pearls in whiteness, and with mirror in hand he is invited to see how beautifully the work has been done. The dentist pockets his fee, and the patient departs as ignorant of the cause of the decay as when he came. But with this the work of a really good dentist does not end, any more than merely curing a sick man constitutes the whole duty of the true physician. Our desire and effort should be not only to do our work well, to restore diseased teeth to a healthy condition, or to provide the best artificial substitute, (which, at best must come far short of good natural teeth), but so to instruct our patients as to the causes of decay, and so to impress upon them the necessity of absolute cleanliness of the teeth, that the necessity of dental operations on themselves or their children, may be less frequent.

To cure disease scientifically, is a high attainment of the healing art, and wins for the medical profession the well-deserved meed of public praise. To forestall disease, and thus obviate the necessity of cure, is still nobler, and when by hygienic and sanitary regulations on a large scale, a whole community is saved from the ravages of disease and pestilence, it entitles that profession to the highest rewards of philanthropy. It is this higher ground of *prevention* that the Dental profession is now called upon to occupy. Admirable as is surpassing professional skill, it is not enough, to perform successfully difficult operations, to excel in mechanical execution, and to be able to insert a better set of artificial teeth than our next door neighbor. If we would elevate our calling to its true dignity as a public benefactor, we must above all things, by proper instruc-

tion, seek to prevent the necessity of frequent dental operations.

What should we think of a physician who should treat successfully a large number of cases of typhus or intermittent fever, and yet, though the cause was well known and could be easily removed, should neglect to tell the neighborhood what it was, and to impress upon them the necessity of its removal. We might admire the knowledge and skill which could effect the cure, but it would be at the expense of his reputation for philanthropy. And what should we think of the medical faculty as a body, if, when they knew that a certain cause was producing a fatal epidemic and hurrying thousands to their graves, they should go on treating the cases and pocketing the fees, without making any effort to spread a knowledge of the proper precautionary measures.

Such, in a measure, is the position of the dental profession. Knowing full well the causes of the decay of the teeth, and that three-fourths of all that are lost could have been saved by being kept clean, we have been content to treat them when diseased, giving merely a little *oral* instruction to each patient (and quite too little of that even) leaving the public at large in total ignorance as to the importance of keeping the teeth perfectly clean.

What now is our duty in this matter, not only as professional men, but as philanthropists? I answer—not only to give such oral instruction to those with whom we come immediately in contact as patients, but to disseminate through popular journals and other publications, information on this subject which will arrest and fix popular attention and convince all of the desirableness and necessity of proper care and absolute cleanliness of their teeth, in order to prevent their decay.

## FOOD.

**How to Select it—How to use it—and how to Prevent Disease by means of it.**

BY E. ANDREWS, A.M., M.D.,  
Professor of Surgery in Chicago Medical College.

THE amount of nonsense published a few years ago upon the subject of a healthy regulation of the diet, was enormous. By the piles of old books to be found advocating Alcottism, Grahamism, and other amazing dietetic theories, one would imagine that healthy eating was a very abstruse and difficult art, in fact, that food was to be taken with fear and trembling, and in the smallest possible quantities. Yet to maintain a healthy diet, is a very simple thing for a sound man, and only requires obedience to his natural instincts and cravings, combined with a little common sense.

The Grahamism and other starvation theories which prevailed twenty years ago, were, however, a natural reaction against the gluttony and excess which before that time had been rampant in all civilized communities. The theories themselves have passed away, but while they flourished, they served to correct their opposites, and to prove to the world, that to stuff one's self with all the viands which a goaded stomach can bear, is by no means the way to obtain the greatest amount of physical enjoyment. Now, how shall we select the proper elements of our nutrition? or in straight Saxon, what shall we eat? If you are a sound, healthy man or woman, and have no bad habits, the answer is very easy. *Eat what is most agreeable to you.* Eat anything that flies in the air, grows on the earth, or swims in the sea, provided it is pleasant at the time of eating and not disagreeable for the next two hours following. It is a great mistake to suppose that men are devoid of natural cravings to guide them in this matter. In spite of all the advancement of science, the instincts, which are the works of God, still maintain their unapproachable superiority over the artificial rules of men, and it therefore remains true for all time, that for wonderful delicacy and unerring correctness, there is no guide for the diet of a healthy man like the cravings of an undraped appetite.

There are, however, certain departures from health which distort the instincts in many persons and render them in some points unsafe guides. Thus, for instance, when a new regiment of soldiers is put into the field, the new mode of life, and the change of food generally produce in the men a certain amount of irritation in the digestive organs. The first effects of this irritation are so mild, that they do not distress the soldier, but only stimulate an enormous and unnatural appetite, thus distorting his instinct so that it is no longer a safe guide to the quantity of his food. Not aware of the trouble, the men eat hugely of their hard bread and bacon at the very time when they should practice abstinence. As the result of this injurious stuffing, the stomach and bowels become more and more irritated, and finally inflamed, and in less than a month three-quarters of the regiment are attacked with camp diarrhoea. So also a glutton, who has long irritated the coats of his stomach with hot spices, and excessive eating. The digestive organs being diseased, the instincts founded on them are depraved, and are no longer to him of any use. He has abused them, and as guides, they are, by a righteous providence, removed from him. If, therefore, we would have a perfect guide to our food, let the instinct be cherished, and very carefully protected from abuse.

*How to use food.* This problem relates to the manner and to the quantity of our eating. As to the manner, the following simple rule will suffice for sound persons. Eat with moderation, masticate thoroughly, and avoid accompanying the food with heavy doses of spices and alcoholic stimuli. The question

of the quantity of food to be eaten requires a fuller answer. There are, in the first place, great natural differences among individuals as to the amount of sustenance required, because the digestive organs of one person are often more perfect than those of another, and will get much more nutrition than those of the other, out of the same quantity. Again, the occupation makes a great difference. A man who labors with his muscles, requires about double the food of one who only works with his mind. Climate, also, has a prodigious influence. Soldiers in the field, in the Rocky mountains, eat about one-half more than those in garrison at the sea shore. Mr. Kennicott says, that in the Arctic regions which he explored, the food of the men consists largely of wild fowl, and that it is customary to allow a whole goose to a meal for each man in the company, making three geese per man for the daily ration. He states also, that three or four natives, when hungry, will consume a whole reindeer at a sitting, the amount which they can eat being astounding, and utterly beyond the capacity of men in warmer regions. Yet, in total disregard of all natural and climatic differences, some writers have had the effrontery to set down a specified number of ounces as the diet to which all men ought to conform, and many a Grahamite has actually bought scales wherewith to supersede instinct, and weigh out his meals according to the book. The only true rule is this: If you are a healthy man, just simply avoid the stimulants, and then eat deliberately until the sense of hunger ceases, and do not concern yourself whether it takes a hummingbird or a goose to answer this demand. When the sense of hunger ceases, then stop before you feel any oppression in the stomach, or loathing of the palate.

*How to prevent disease by diet.* The simplest disease which is amenable to diet, is corpulence. In persons otherwise healthy, obesity always indicates excess in eating, and yet, it is a matter of amazement to me, to observe that almost every person who consults me on account of this difficulty, declares that he is a very light eater, and that he will certainly starve if I diminish his allowance. Fat people often have those perfect digestive organs which extract the utmost possible nutrition from their food, so that they will not only live but grow obese upon one-half the allowance which another and leaner man consumes. Full and spare diet are only relative terms. If a man eats enough to sustain healthy life, and at the same time to accumulate an excess of fat, that is positively too much for him, however little it might be for another.

*Corpulence can be cured in every instance, except where dependent upon certain peculiar diseases.* When pugilists commence "training" for a prize fight, they are commonly found, from previous indulgence, too fat for victory. The very first step, therefore, taken by the trainer, is to reduce his man to a proper thinness. This is accomplished with unerring certainty, by subjecting him to proper diet and exercise, and no difficulty

is found in it. A gentleman, who weighed about two hundred and twenty pounds, applied to me to reduce him to proper dimensions. I immediately put him upon an allowance of eight ounces of food a day, consisting of lean meat, bread and vegetables; at the same time, I ordered him to walk ten miles daily, or, in lieu of it, to take three hours hard exercise in the gymnasium. By following these rules, he speedily reduced his weight some forty pounds, and having thus learned how to manage the matter, he never again became corpulent.

The rules for reducing corpulence may be practically condensed as follows: 1st. Take three hours hard, muscular exercise daily. 2nd. Weigh out the allowance of food each day, eight ounces for a man, or six for a woman. This quantity must not be exceeded, and must consist of lean meat, bread and vegetables, without any fatty substances. Under such management, the obesity will rapidly disappear without injury to the health. When the proper thinness is attained, the food may be increased to a reasonable quantity.

Rheumatism is another disease which may generally be prevented, and even cured by skillful selection of diet. Rheumatism only attacks those whose constitutions are at the time predisposed to it from internal causes. It is found by experience, that an excessive use of meat diet, tends to bring on this predisposition, while a purely vegetable food has a tendency to prevent the disease. Some persons notice that they are able to produce symptoms of rheumatism at any time by a few days excess in animal food, and can as readily cure them by a return to vegetables. Most persons who are subject to frequent rheumatic troubles, are excessive meat-eaters, and consume but few vegetables. The same remark may be made of asthmatic patients, who seem to have a constitution identical with the rheumatic, and like it, aggravated by animal food. If a person with a rheumatic diathesis therefore, will observe his first symptoms of soreness in the muscles or joints, he may generally cure them promptly, and sometimes prevent severe sickness by observing the following rules:

- 1st. Resort at once to a purely vegetable diet in the quantity of ten ounces for a woman, and twelve for a man per day.
- 2nd. Take a daily warm bath for a week.
- 3rd. Take for a time but little exercise, and live a quiet, in-door life.

There are persons of hereditary rheumatic constitutions in this city who manage their own cases in this way, and thus maintain a complete mastery over their troubles.

The direct effects of diet upon the teeth are not as striking as might be at first supposed, but the indirect effects are very important. Whenever one eats in excess, the food is apt to sour in the stomach. This is followed by eructations of acid fluids into the mouth, and sometimes by a depraved and acid saliva which corrodes the teeth by dissolving away their mineral matter. Thus the teeth are ruined by the effects of indigestion.

It is obvious, therefore, that a correct and rational diet is capable of itself, of preventing many diseases in all parts of the body, and even when the attacks have already commenced, a proper variation of the diet will sometimes cure it with all the potency of a powerful medicine. Our destinies are, therefore, to a great extent, in our own hands. Generally, he that lives according to sound reason and instinct, will be rewarded by long life and full enjoyment.

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### INTRINSIC VALUE.

WHILE in a jewelry store the other day, I listened to a conversation between the honorable merchant and two intelligent ladies, who were engaged in purchasing a watch. I was more than ordinarily pleased with the merchant's fair and candid statement of the value of the different watches being examined by his customers. "Can't you take less than \$125 for this watch?" said one of the ladies. "Not consistently," replied the merchant. "I am giving you figures that afford me barely a living profit; that watch is intrinsically worth all I ask for it." "I cannot see," said the lady, "how there can be so great a difference between that watch and this"—taking up another. "This watch seems cheap at fifty dollars, and so far as I can see, it looks as well." "True," said the merchant, "but the value of the other watch is in its *quality*, and not in its *appearance*. It is the cheaper of the two. The intrinsic difference between them is really more than the price I ask for the watch you have in your hand. We always make the most on cheap goods. The watch you are now looking at, is worth fifty dollars; it will keep good time, and not vary more than five minutes in a month. But *this* is a *perfect* time-keeper, and with good usage, after being properly regulated, it will not vary one minute in six months." "Well," said the lady, "if that watch is the cheaper in proportion to its price, and is intrinsically worth one hundred and twenty-five dollars, I will take it, for I want a perfect time-keeper."

On my return to my office, I found a patient waiting for me, a fine looking young woman, of nineteen years. As I stepped to her side to see what was required, she opened her mouth, exposing a set of teeth of rare quality, bearing that fine color and texture, faultless relation, symmetrical arches, and perfect articulation, which together impart that indescribable expression always observable in a fine face. Not a cavity or imperfection was visible, except in the central incisors. They had each a cavity in their approximate surfaces, which, two years previously, had been filled without any separation either by wedging or filing. The cavities were located high up, reaching a little above the point where the crowns diverge to form the necks of

the teeth, affording an opportunity of imposing upon inexperienced credulity, and leaving the process of destruction already begun, to have its perfect work. The fillings had not come out, for the reason that the edges of the enamel were so firm, and the teeth were so close together, that they could not easily get out; nevertheless, the decay went on quite as rapidly as if they had been left unfilled. I at once discovered a discoloration of one of the teeth, which to an experienced eye was an unmistakable evidence of an ulceration. I gently raised the lip, and a discharge from a recent abscess bore witness to the correctness of my apprehension. My feelings were at once excited by mingled pity and indignation. I felt a deep sympathy for the great and irreparable loss which my patient had sustained, and I was moved with a holy wrath at the miserable, heartless villain, who, by his impudent pretension, for a few paltry dollars, had sacrificed on the altar of quæckery, these beautiful and priceless organs.

The words of the merchant rang in my ears, as I looked upon the gilded attempt of an unprincipled impostor. "*Intrinsic value*," thought I. Yes, intrinsic value. What would not that lady now give to have fallen into the hands of an honest dentist, whose operations had intrinsic value; who, with the truth and confidence of the merchant referred to, could have said at the close of his operations, "those stoppings are worth all I ask for them and more—they are perfect,—they will preserve your teeth"? At that time, with reasonable skill, those teeth, so far as the cavities then existing were concerned, could have been preserved a score of years. But to return. The fifty-dollar watch had an intrinsic value—it was worth the money—it would measure the hours of the day pretty correctly. But what is the value of *such dentistry*? Can we say that it has any "*intrinsic value*"?

I need not tell you the injury sustained by this credulous person—you know it full well; you know that the tooth is sooner or later to be lost, and every time it is exposed, its darkened color, like the ghost in Macbeth, will testify to the crime of its destroyer. If this were an isolated case, we could reasonably be silent, but you, and every good operator, will bear me witness that this is not at all an exaggerated description of a large portion of the dentistry done throughout the country. Can the community be made to see this thing as it is? Can light be thrown on the blackness of the characters of such men, so as to expose plainly the villainy of their deceit, and the rottenness of their doings to the eyes of men? Can the reason be engaged and the judgment enlisted to make an equally wise choice of dentists, and to select those whose operations really have *intrinsic value*?

I hail with gladness the advent of the **PEOPLE'S DENTAL JOURNAL**. May it add new force to the instructions and warnings of every honest dentist, so that these deeds of darkness

may be told far and wide throughout the land. Let every pen be valiant to defend the honor and priceless value of skill and attainments in our noble profession, and bold to expose the villainies of such imposters. At them let every finger point with scorn, and every tongue cry, "Away with them." P.

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### DENTAL FEES.

PERHAPS there is no class of professional men so much abused by the public generally for charging exorbitant prices as dentists, and it is certain that many times they are unjustly accused.

In discussing this question, I propose to do so quite briefly, and from a single stand-point, but not in any sort as an apologist. I come to claim boldly and unequivocally for the competent dentist, a liberal remuneration, and it is believed that facts can be stated, appealing to the sense of justice of most individuals which shall establish the claim of such dentists to the most generous compensation.

It must be remembered that the qualified dentist spends three or four years in preparatory study, and generally *many* years in establishing a reputation that shall bring him a remunerative practice. When this is accomplished, he finds himself embarked in one of the most trying and unhealthy occupations he could have selected.

The operative dentist is confined almost exclusively to his office, scarcely during the day getting a breath of pure, fresh air, while he is forced frequently to breathe an atmosphere absolutely contaminated, and that to a degree that must be experienced to be appreciated. He is constantly kept in a position the most tiresome and unhealthy, while the character of his labors is extremely exhaustive. Thus having been deprived of fresh air to breathe, of all healthful or invigorating exercise, the close of each day finds him wearied and prostrated, mentally as well as bodily. Still his labor for the day is not yet done. He has had no time during the day for reading or study, and must rob himself of the needed recreation of the evening, or else of some portion of his equally needed sleep and rest, that this very important part of his duty to himself and his patients may not be neglected.

Is it not clear then, that the occupation of the dentist is necessarily an unhealthy one? If this is so, you will not be surprised at the statement that very few dentists can continue in *full* practice for many years, without finding their health seriously impaired, or utterly broken.

It may safely be said that nine out of every ten dentists who have attained to anything like success or competence by means of their profession alone, have done so at the expense of their

health. Either they have been unable to follow longer the practice of their profession at all, or they have followed it to so limited an extent, that their income from it has proved but nominal and very uncertain.

Now, upon this statement of facts—and they are facts—is based the claim which has been asserted.

Not taking into consideration the high order of skill requisite in the dentist, a skill which when attained must always command a high price, nor the fact of his almost entire exclusion from all out-of-door enjoyments and recreations, but simply upon the ground of the absolutely unhealthy character of his occupation and the almost certainty of the loss of health in obtaining competence, simply as a matter of justice, the right is asserted of the skilled and competent dentist to a generous reward.

Clearly, the dentist can only make provision for the future, while his health and strength enable him to work, before those dark days come—which are so sure to come—days when he can no longer labor, and when perhaps his life will be a continual struggle with disease engendered by his devotion to his profession. In a word, he must condense within the compass of a few years, the labor and results of an ordinary lifetime.

I think I have made good the claim I have advanced, but if I have not to all, to those who are disposed to deny the claim, I have only to say, I wish they might have the personal experience, and they would accord all that is demanded in this article.

And now, kind reader, one word as to what has prompted this article, and I have done. I know that the public generally do not understand this matter in its true light, nor could they be expected to. I know, too, that skilled dentists of established reputations will continue to charge high fees, and the public will continue to pay them—but I hoped in writing this article—basing the claim which I have endeavored to substantiate, upon what seemed to me to be its true and legitimate grounds—to establish a more kindly feeling between patients and their dentists than perhaps would otherwise have existed. I hoped, too, to induce some of my readers to believe that all dentists are not actuated by simply sordid motives. There are perhaps as many of the dental as of the medical profession, who are impelled by high and noble motives, laboring assiduously and conscientiously for the alleviation of suffering, and for the highest interests of their patients.

Asking you to give this subject a fair and candid consideration, let me believe that I have not wholly failed in my undertaking.

C.

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**HOME AGAIN.**—The friends, and especially the patients of Dr. E. A. BOGUE, will be glad to learn that he has returned to Chicago, from a tour of nearly a year in Europe, and has resumed his practice in this city. The Dr. is looking well, being much improved in health from his travels.

**ENGAGEMENTS WITH YOUR DENTIST.**

HAVING made an appointment with your dentist for a sitting at a specified time, no circumstances, save those absolutely beyond your control, should be allowed to prevent you from fulfilling your engagement punctually. The business hours of every operator in full practice are apportioned to his patients at stated intervals of time, and his several appointments are all made with a knowledge on his part of about the length of time it will take to render the particular service in each individual case. The non-attendance of any one of his patients at the appointed time is, therefore, always a source of some annoyance and confusion.

A patient punctual to his or her engagement is, by an obligation binding upon the dentist, entitled to the chair at the time agreed upon, but it will be readily seen that the operator cannot fulfill this obligation in good faith, if those behind time are served. Under such circumstances, the party in fault can have no just claim upon the services of the dentist at such a time, and cannot reasonably complain if the latter declines to operate.

Every practitioner who cultivates order and system in his office arrangements, and who is particular to act in good faith with *all* of his patients, can do no less than adhere rigidly to this requirement of strict punctuality, even though it offend, or subject dilatory people to some inconvenience.

In all cases where it is impossible to fulfill an appointment, timely notice should always be given, if practicable, of his inability to attend.

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**BOOK NOTICES.**

THE PEOPLE'S JOURNAL OF HEALTH—APRIL. JUSTIN HAYES, M.D., and C. R. BLACKALL, M.D., Editors and Publishers.

We have received from the Editors the initial number of the above periodical, which we hope will supply a serious want, long felt in Chicago. The object of the Journal is a noble one—to teach the people so to live that they may enjoy sound health, and prevent disease, by a timely observance of the laws of nature.

In another part of our Journal, we have given at length our views in regard to the duty of the true physician, and we here cordially indorse the high aim which the Editors have proposed to themselves, and wish them success in attaining it.

**THE DENTAL TIMES.**

We have too long neglected to acknowledge the receipt of this new Dental Quarterly, edited and published by the Faculty of the Pennsylvania College of Dental Surgery. For this unintentional slight, which is hardly excusable, we ask the indulgence of its proprietors.

Judging from the three numbers which we have received, this Quarterly will be a valuable acquisition to our Dental literature, and it deserves the hearty support of the profession.

Vol. 2 No. 3

THE NEW ENGLAND  
DENTAL SOCIETY.

Presented by

THE

# PEOPLE'S DENTAL JOURNAL.

JULY, 1864.

## DENTAL COLLEGES.

### TO THE PROFESSION AND THE PEOPLE.

The announcement of the Dental Colleges, which may be found in our advertising pages, should claim the attention of the profession. Dentists who have students under their supervision, should exert all their influence to induce them to attend the lectures, and graduate at one or the other of these institutions before entering upon the active and responsible duties of a position which it would be difficult for any one properly to discharge without a systematic and practical dental education.

In saying this, we would by no means be understood as wishing to imply that it is impossible to become a good dentist without attending a dental college. We know that there are many able and successful practitioners amongst us who have never enjoyed these advantages, as there is occasionally a man distinguished for learning and ability who has not enjoyed the advantages of a liberal education; such, for example, as Elihu Burritt, the well-known, learned blacksmith, or Ferguson, the astronomer. But the very fact that such exceptions are held to be remarkable, and attract so much notice when they occur, only proves the general accuracy of the rule, and shows more fully the necessity of a careful and systematic preliminary training as a guaranty to success in any calling. For these apparently exceptional cases were, after all, obliged by patient and laborious self-teaching to make

up for themselves that education which the advantages of a liberal collegiate course of study would have more easily secured.

Then again, most of our oldest dentists who have become distinguished as practitioners, began when dentistry made but little pretension to science. It was then a sort of catchpenny calling, a make-shift, by which a class of men, who had failed in almost every other kind of business, could make a living. A little Yankee ingenuity, which would enable a man to solder up a piece of old tinware, set an old clock in running order, or turn his hand to any odd job that might offer; in short, the ability to become a sort of universal tinker, was about all the acquirements usually possessed by dentists, or required of them by their patients, within the recollection of many who are now practising.

It was in this condition that they found the practice, and they have grown up in it and along with it, and gradually developed it into the noble profession which the student of dentistry now finds it. In its ranks are now found men who, in ability and attainments, compare favorably with the most respected of the other professions. In its present advanced condition no one can reasonably expect to excel in it without a systematic and careful course of preparatory training, and in no way can this be as surely obtained as in a well-conducted dental school. No one should infer from this that we would ignore or underrate the benefits derived from private instruction, for no one can regard it with greater favor; but this should only be given as preparatory to college instruction. Hence, the enlightened dentist of the present day owes it to the honor of his calling, as well as to the good of the community, to do all he can to assist, by private instruction, worthy young men, and to urge those about to enter upon the practice of such a profession, to do so only after a thorough and systematic course of preparatory study in a dental college, precisely as our young practitioners in medicine are now all instructed in medical schools.

Having said so much to the profession in relation to the duty and the advantages of encouraging our students to attend dental lectures, we wish now to say something to the people as

to the manner in which dental colleges are managed, and as to what is taught in them ; for, as this is a matter in which their own welfare is intimately concerned, it is a subject in which they certainly should feel interested, because they may thus be enabled to realize how much better such graduates are prepared to practice their profession than are those who have received twelve or eighteen months' careless or indifferent office instruction.

In every dental college there are from five to seven professorial chairs, which are occupied by men chosen for their acquirements in the department they are appointed to teach. From four to seven lectures are delivered each day, which are illustrated with appropriate diagrams, preparations, anatomical dissections, chemical and other experiments, and whatever operations are necessary to illustrate the principles and truth inculcated. From these chairs are taught the general science and principles of dentistry, anatomy, physiology, pathology and therapeutics, a general survey of surgery and the *materia medica*, and operative dentistry, which includes the most approved modes of performing all operations upon the natural teeth ; mechanical dentistry, which includes the making of artificial teeth and the various modes of mounting them and preparing them for the mouth, the working of metals, and the science of chemistry as applied to dentistry.

There is connected also with every dental college a clinical department, or infirmary, where, on account of the *nominal* fee charged, a large number of the poorer class apply for dental operations. Everything done in this department is under the eye and direction of two experienced and competent dentists ; one is known as the demonstrator of operative, and the other as the demonstrator of mechanical dentistry. In this way the student has abundant opportunities of putting into practical operation the principles taught by the different professors, and to witness and perform all operations found in actual practice.

From this summary of the course, will be seen at a glance how wide and comprehensive is the range of study required and instruction imparted in a dental college, and how far superior

its advantages must be to anything which can be secured by the student, whose instruction is derived solely in a dentist's office.

To give the public a more definite idea of what is taught in these colleges, we give somewhat in detail the mode of instruction pursued. This will enable them to appreciate clearly the difference between the ordinary office instruction and that derived from dental colleges.

The lecture season lasts about five months. Preparatory to the regular course, a series of lectures is delivered upon subjects relating to the practice of dentistry. They consist of general remarks upon the extraction of teeth, the taking of impressions, and the making of casts and dies; and upon the circulation of the blood, the anatomy and functions of the organs of digestion, the properties of the air, electricity, etc.

The instruction in the department of operative dentistry embraces dental physiology and a description of dentition, with its morbid results, beginning with the first formation of the teeth and ending with the loss of the permanent teeth and the absorption of their sockets; the preparation of the cavity for filling, the materials used for the purpose, and the means of introducing them; and the practical illustration of the whole subject by actual operations upon the teeth before the class.

In the department of mechanical dentistry, the professor devotes himself to describing the processes of taking impressions, making casts, refining, melting and rolling the various metals used by the dentist; swedging plates and fitting them to the mouth; making solder, moulding and carving artificial teeth, and selecting and arranging teeth, so that they will articulate properly and harmonize with the complexion, size and contour of the face, etc.

In the department of anatomy and physiology, the means of instruction are most ample, and the application of this science to the whole physiological structure, is fully developed. The relative position and functions of the several organs are shown not only by manikins, but by careful dissections. From this chair the subject of comparative anatomy and its relation to dentistry receives the attention its importance demands.

The professor of dental institutes reviews the general principles of medicine and surgery, shows their application to the specialty of dentistry. The various diseases of the teeth and their adjacent parts are illustrated by models carefully prepared and of large size, which make the various pathological conditions met with familiar to the eye.

The lectures on chemistry, both organic and inorganic, are nearly as full as they are in medical schools, especial pains being taken to adapt them to the wants of the student. They include, also, a consideration of the laws and chemical action of heat, light and electricity. The laws of mechanics, as governing the action of the physical forces, every day called into requisition by the dentist, and of hydrostatics, hydraulics and pneumatics, are discussed and explained.

Every dental college is furnished with large and valuable collections of apparatus to enable the professors to illustrate every subject taught, to the entire comprehension of the student. Each student is compelled to devote a certain portion of his time to the actual practice of all the details of his profession in the laboratory and infirmary.

In this way not only the head but the hand becomes educated, which fits the student for the active and responsible duties of his profession.

If, after having studied two years, and attended two full courses of lectures, the student can pass a satisfactory examination before the faculty of the college in the various branches taught, he is recommended for graduation and to receive the degree of Doctor of Dental Surgery.

The student, thus educated, is not only properly instructed as to the correct mode of manipulating, but is also qualified to treat scientifically, from a medical stand-point, all diseases to which the mouth is subject.

With such advantages as these, properly improved, the reader must see that the foundation for a correct dental education will be laid broad and deep, upon which to rear a professional reputation, and that those who confide in the skill of such dentists, will have a reasonable guarantee that if their confidence is abused, it will not be from a lack of correct professional instruction.

If the people would properly appreciate this matter, in its relation to their own welfare, a diploma from a Dental College would be regarded as of the first importance, to entitle those who hereafter enter upon the practice of dentistry, to public confidence and patronage.

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### WHAT CONSTITUTES A DENTIST.

If we were called upon to give, in the fewest possible words, our opinion of what constituted a dentist, selecting the highest type, it should be : one conversant with the principles of dental science and art; well skilled in all the practical details of these departments; good natural endowments, with mental culture and accomplishments; and one who combines in his character, public and private, the essential characteristics of an upright, well-bred gentleman. Indeed, we do not know that we could do better than to present these several qualities in detail, and produce, as nearly as possible, a finished picture from this outline or groundwork of our portrait.

Let us first consider, then, the proposition that a dentist is *one conversant with the principles of dental science and art.* Upon this qualification rests mainly every one's claim to the title, and without it no man, whatever his natural ability or genius may be, can be esteemed worthy of the distinction. This qualification implies more than is generally imagined. It presupposes a mastery of the principles of operative and mechanical dentistry; a knowledge of metallurgy; the science of heat; the principles of natural philosophy and mechanics; a fair acquaintance with generally anatomy, histology, physiology, therapeutics, chemistry, medicine and hygiene; and a thorough knowledge of these latter branches in their relation and application to dental practice. It would be impossible, within the limits assigned us, to point out the application of these several studies to all the exigencies of dental practice; but they are now recognized by every intelligent practitioner as an essential condition of success. Familiarity with all these studies can only be attained by years of diligent and uninterrupted application. First, there is the

term of pupilage—two or more years, under competent direction; then the collegiate course—two sessions of four months each. Having graduated, the student passes to his field of labor as a practitioner, but still a student—always a student. Having exhausted standard works, and having derived whatever knowledge may be obtained from private and collegiate teaching, there are still new and ever-increasing demands upon his attention in the current periodical literature of the day, which no dentist true to himself, his profession, or his patients, can ignore. These journals sum up the added experiences of the profession from month to month, and are the index of its progression; and that practitioner who has not one or more of them at his command, cannot be posted in his profession, and his qualifications to discharge his whole duty to his patients may be justly viewed with suspicion. Indeed, we think that the character and extent of a dentist's library may be safely and fairly taken as a criterion of his capacity and acquirements, and that a man without one is sailing under false colors when he styles himself dentist.

Dental associations, now so rapidly multiplying throughout the country, afford still additional means of acquiring new and valuable principles, having a practical and important bearing upon the every-day duties of a dentist. No man can hold himself apart from these organizations and keep fairly abreast with the profession, and patients who are ambitious to secure the best services, will rejoice at the periodical absence of their dentist, whose presence at their societies cannot fail to afford them gratifying assurances that when he returns it will be with enlarged capacities to render them better and more acceptable services.

Our second proposition is, that a dentist is *one well skilled in the practical details of the departments of operative and mechanical dentistry.* This implies a thorough education of the *head* in the principles which underlie practice, and of the *hands* to execute, in the highest style of the art, the conceptions of the mind. These, combined with a cultivated taste, dexterity in manipulation, and fertility of invention, qualities developed and matured by years of arduous study, and by diligent appropriation and application of new principles and modes of practice, are the

elements that constitute *skill*, and distinguish the accomplished dentist from the peddling quacks of the day.

The next assumption is, that a dentist is *one who possesses good natural endowments of mind, and, at the very least, a fair share of mental culture and accomplishments aside from his professional attainments*. The very nature and requirements of his calling, which may now be ranked as a learned profession, demand, before entering upon its studies, a liberal education; and no one without this preliminary qualification can ever hope to attain to a creditable mastery of the principles of dental science, or to great usefulness or distinction in practice. Aside from such claims, the social and, for the time being, familiar relations of dentist and patients, very many of whom are refined and cultivated, render his social fitness and intelligent and agreeable companionship a matter only second in importance to his skill. An illiterate dentist implies an *absurdity*, and any such claiming the title, whatever their motives, are of a class who have greatly mistaken their calling, and who, if honestly disposed, do no less violence to themselves than to community. They are, at the very best, but professional paupers, *consuming* what other men's brains *produce*, and are honored by rather than honor their profession.

In conclusion, it is affirmed that a dentist is *one who combines in his character, public and private, the essential characteristics of an upright man and well-bred gentleman*. There is, perhaps, scarcely any pursuit in life that offers more frequent and varied opportunities for deception and downright thieving than dentistry, and herein lies the secret of the large number of uneducated, mercenary and unscrupulous adventurers who have sought this field wholly for purposes of *gain*. So essential is uprightness and probity in the practice of dentistry, that the man or woman who entrusts his or her best interests to the keeping of a dentist of whose trustworthiness they have no assurance, may, if they are not swindled, attribute their good fortune more to chance than the exercise of a sound discretion. It will scarcely be deemed uncharitable to assert, moreover, that any one, fairly forewarned of these sharpies, who permits himself to be duped, *deserves* to be swindled. There is scarcely

any community but has its dentists of tried and approved honesty, and whose standing, in all their relations to society, is without reproach. There is therefore no excuse for well informed persons, who countenance and support that irresponsible class of quacks who attract patronage to themselves by those shameless popular devices only known to men of mean capacities and bankrupt morals, and who lay in wait to entrap and victimize the credulous and unsuspecting.

A dentist, true to the requirements of his profession, will always be found a well-bred gentleman. His personal deportment will always be such as to command respect, and he will possess a ready perception of and act upon those delicate proprieties of life which, under circumstances of familiar relationship, is the patient's only security for considerate and honorable treatment. He will be neat and cleanly in his person; affable and humane in the exercise of his duties; firm in his convictions of right and duty; and will always entertain at heart an earnest and friendly solicitude for the interests of those entrusted to his care. His office appointments will always be such as to please the eye and gratify the tastes of his patrons, and all his surroundings will be such as will tend to mitigate the pain and uneasiness his services must oftentimes inflict, by thoughtful attentions to the convenience and comfort of his patients.

Many thoughts and reflections have been omitted in this sketch of what constitutes a dentist, but enough has been said, perhaps, to enable our readers to recognize the portrait when they meet with it. In the next number of the JOURNAL, we shall endeavor to present you with the likeness of a *quack*.

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#### **"SLAUGHTER OF THE INNOCENTS."**

One of the crying evils of the times is the wholesale and remorseless extraction of the natural teeth, to give place to artificial ones. We suppose there never was a time in the history of our profession, when every honorable and well educated dentist should lift his voice in fearless protest, with more per-

sistent determination, than at the present time, against this crying abuse.

The use of anesthetics—such as *nitrous oxide gas, chloroform, ether, etc.*,—together with the facility and cheapness with which artificial substitutes can be furnished, by the hard rubber or vulcanite base, presents a temptation to many persons hard to be resisted. The patient is seduced by the prospect of a painless removal of the old teeth, and a “perfect and beautiful set” of artificial teeth mounted on rubber, that will not ache, and all for the sum of ten or fifteen dollars. And the dentist is deterred from an effort to save the natural organs, either from a conscious want of ability, or lack of courage to encounter the difficulties, from which no competent honest man should ever shrink.

And thus, thousands of teeth, which can *most surely* be preserved for years by the application of proper means, are wickedly sacrificed, either to the cupidity or the indolence of the operator, or the cupidity and timidity of the patient. In either case, it is inexcusably wrong and wicked.

Unquestionably there are cases where to remove the teeth, and substitute them with well mounted artificial ones, is *right-best*,—yea, even *necessary*. But to sacrifice the natural organs where they *can* be saved, and where, by every consideration of high professional honor and practice, they *should* be saved, is extremely culpable. And we feel in duty bound to warn our readers and patrons, that this unconscionable practice of extracting teeth that ought to remain in the head, is being practiced in this country at the present time to a most alarming extent. And we call upon every honorable and high-minded dentist throughout the land, to resist such tendencies with the *stoutest possible protest*.

These priceless gems are too precious, and their functions in the animal economy too important, to be destroyed as above indicated. If we *can* save them, we *ought* to do it. If we *can and will not*, we are dishonest. If we believe we can, we should so instruct the patient, and sternly refuse to do otherwise simply for a fee.

**DENTISTRY, PAST AND PRESENT, IN THE UNITED STATES.**

Those of our readers not far advanced beyond middle age, doubtless well remember the imperfect and uncultivated condition of the dental art at a period anterior to 1840. During the greater part of the first half of the present century, dentistry was only known as an *Art*, rude in its development and slow in progress; and it was not until about 1840 that it began to assume the usefulness, dignity and importance of a *Science*. From that time to the present, its progress, and the commanding position it has attained, is without a parallel in the history of learned professions. In its beneficent ministrations, and the blessings it confers, it is the honored handmaid of medicine, and certainly worthy of no less distinction so far as its offices apply to the wants and necessities of mankind. A glance at the past and present of our profession in this country may not be uninteresting to the readers of the JOURNAL, and will perhaps afford some insight into the agencies which have contributed to that wonderful progress, the blessings of which are everywhere felt.

The first dentist of whom we have any account as a practitioner in this country, was a Mr. Woofendale, who located in New York in 1766. Meeting with but little encouragement, on account of the limited demands for dental services at that period, he returned to England, after a residence here of two years. About this time, Mr. John Greenwood, the first native American dentist, established an office in the same place, and is said to have been the only one in that city as late as 1790. To this gentleman belongs the distinction of having supplied Washington with a full set of artificial teeth carved from ivory. At the beginning of the present century, there were probably a fewer number of dentists in the United States than may now be found in any one of our considerable inland cities. As late as 1830, they did not probably exceed 300. The number in 1842 was estimated at 1400; in 1848, at 2000; and at this period of time, the number probably exceeds 6000.

Prior to 1839, the literature of the profession was restricted to the publication, by individual practitioners, of short essays or monographs, many of which were designed for popular read-

ing, and as advertisements for the authors. The first periodical publication devoted to the interests of the profession, was a quarterly, established in 1839 at Baltimore, called the *American Journal of Dental Science*. There are now some eight or more quarterly and monthly journals having an extended circulation, and whose pages are constantly enriched by contributions embodying the reflections and experiences of the best practitioners from all sections of the country. There have been published, also, within the past few years, extended and systematic works or treatises on almost every branch of dental science and art. The oldest standard work in this country is entitled "Principles and Practice of Dental Surgery," by Dr. Chapin A. Harris, of Baltimore, recently deceased. This voluminous work has passed through some eight editions, and has exerted, in its time, a commanding influence upon the character and interests of the profession. Since that time, there have been issued several standard works: one on "Dental Chemistry and Metallurgy," one on "Dental Medicine," one on "Operative Dentistry," and one on "Mechanical Dentistry." There have also been several translations and republications in this country of standard European works. The literature of dentistry at this day, though by no means so extended, will compare favorably in character with that of medicine; and in no respect is the solid growth and influence of the profession more manifest than in the extent and character of its publications.

The first *Dental College* ever established, here or elsewhere, was founded at Baltimore in 1840. This event marked a new era in the history of dentistry, and the title of Doctor in Dental Surgery conferred upon its graduates, was justly regarded as a badge of honorable distinction everywhere. This school was soon followed by another similar institution at Cincinnati, Ohio, and one at Philadelphia, and more recently a second school at the latter place, and one at New Orleans. The profession is largely indebted to these schools for its present standing and influence.

But, unquestionably, no agencies, nor all others combined, have had such marked and direct influences in developing the resources of our art, or in enhancing the achievements of dental

science, as what may be termed *associated* effort. Prior to 1840, there was but little fellowship, private or public, between dental practitioners, and every acquisition was hoarded up for private consumption, and the secrets of the laboratory and operating room were as inaccessible to a fellow practitioner as the miser's guarded treasures to prowling burglars. It is, indeed, little to be wondered at that, under the blighting influences of this then all-pervading selfishness, no material progress should have been made in all the years that preceded the advent of the first American dental society in 1840. This association, among other important benefits which it conferred, was eminently *revolutionary* in its influences upon that system of exclusiveness which denied to others the benefits of individual experiences; and in time, though by slow degrees, this exclusiveness was made a reproach, and a community of sympathy, of thought, and of interests established, more in consonance with the spirit of the times and the demands of humanity. From the organization of this society dates the dawning of that spirit of liberality which now pervades the profession, and which, more than all else, has made it what it is—useful, dignified, progressive, learned and humanitarian. There are, at the present time, two leading *national* associations, which meet annually; some five or six *state* societies, and fifteen or more *district* and *local* organizations, holding monthly or semi-annual sessions.

In what is called the *operative* department of dental practice, very marked advancement has been made within the past twenty years. Formerly, the *key* instrument was about the only one used in extracting teeth; but when *forceps* were introduced, the former went gradually into disuse, and at this time is rarely employed. The forceps used but a few years ago were, indeed, but sorry instruments for the purpose, but they were rapidly modified and improved, and those now in use seem hardly susceptible of further improvement in their form or adaptation to all the exigencies of practice. With such as are now found in every competent dentist's case, the patient, in the hands of a careful and skillful operator, has abundant security against the infliction of pain not absolutely unavoidable, or serious injury to surrounding parts. For the alleviation of human suffering,

not only in the painful operation of extracting teeth, but in general surgery, the world is indebted to an honored and distinguished member of the dental profession, Dr. Morton, for the introduction of chloroform. Other means for the production of insensibility have since been introduced by the profession with varying success, as *congelation*, *galvanism*, *sulphuric ether*, and more recently the *nitrous oxide gas*. The crowning blessing of an absolutely *harmless* agent in the production of complete insensibility seems hardly yet to have been obtained, but the restless spirit of discovery, it is to be hoped, will yet give to the world some safe agent that shall rob surgery of its terrors.

In the operation of *filling* teeth, the present has advanced greatly upon the past in the methods of operating, the preparation of materials, and in all the details of manipulative skill. Teeth with irregular shaped cavities, or walls much broken away, or crownless roots, which were formerly regarded as beyond the power of the dentist to repair, are now made serviceable for years by a process of welding gold into any desired form, restoring the lost proportions of the tooth, and even building upon well-conditioned roots an entire crown of gold, solid, impervious and durable.

The greatest achievements of modern dentistry, however, have been in what might properly be called *conservative dentistry*, or the restoration of diseased states of the teeth and their surroundings to conditions of health. The time is within the memory of most of our readers, when the exposure of the nerve of a tooth, and its accompanying toothache, were considered by dentists and patients as sufficient provocation for immediate extraction of the offending organ. But the dentist of this day who would recommend or encourage such a procedure as a rule of practice, would sin against light, and bring lasting reproach upon himself and his profession. No dentist conversant with the resources of dental surgery and therapeutics, now hesitates to undertake the cure of such a case; and the large per centage of successes in the hands of thorough and expert manipulators, is one of the triumphs of dentistry alike flattering to the skill of the profession and encouraging to the afflicted. Not only are teeth with exposed nerves amenable to treatment, but our resources go far-

ther, and rescue such as are complicated with abscess or gum-boil. Community must not expect these results from every one who may choose to style himself *dentist*. The profession is overflowing with unscrupulous upstarts and impudent pretenders, who are worse than vandals, destroying rather than saving; and patients who desire the best skill and the best services, will not be likely to find them by stumbling into the first office in their way, but must seek them as they would any other good, from the best sources—from *educated* and *responsible* men.

In the *mechanical* department of dentistry, progress is no less conspicuous. During the fore part of the present century, the substances chiefly used for artificial dentures were human teeth, teeth of cattle and sheep, and teeth formed from the elephant's tusk and the tooth of the hippopotamus. Human teeth and those of cattle were riveted to gold plates, and these were kept in the mouth by ligatures of silk or fine gold wire attached to the adjoining natural teeth. More frequently, teeth were carved from the ivory already spoken of in the form of blocks or sections, which were attached to gold plates by rivets. A very common method also was to carve the entire piece, teeth and plate, from a solid block of ivory. Notwithstanding these substances were in every respect unfit for the purposes to which they were applied, yet they continued more or less in use as late as 1830, or later.

Mineral teeth were first introduced into this country from France, in 1817. They were then but feeble imitations of the natural organs, resembling "split beans" more nearly than teeth. But little improvement was made in them until their manufacture passed into the hands of individuals devoted exclusively to their production. There are now some five or six extensive teeth manufacturing companies in this country, employing a very large number of operatives, male and female. A statement appeared in 1853 that a million and a half of teeth were then being manufactured annually, and it would be safe to estimate the number at more than double those figures at the present time. Large numbers are annually exported to foreign countries, being popular everywhere as the most finished, durable

and life-like imitations of the natural organs produced in the world.

The varied and important improvements in the styles and methods of constructing artificial dentures are already well known to our readers, these having been fully given in former numbers of the JOURNAL.

Amongst other important achievements of the dental art is one recently perfected, by which the loss of the entire soft palate is replaced by an ingenious mechanical fixture, performing, in a great measure, all the functions of the natural parts. The honor and credit of this crowning triumph of the art was reserved for an American dentist, the simplicity and perfection of whose apparatus greatly excel anything heretofore achieved in this way.

There are multitudes of important improvements in modern dentistry, the details of which it would be impossible to give within the limits assigned us; but enough has been presented, we think, to convey some idea of what dentistry *was* and *is* in this country. As the people of the present time are indebted to scientific dentistry for all the benefits and blessings which it is conferring, may the profession not reasonably hope and expect that the public will give support and encouragement to the faithful, earnest, responsible and educated men in it, who are laboring to still farther enhance its usefulness; and to disown, on all occasions, by their patronage and personal influence, that miserable and mercenary class of humbugs, without character or fitness for their calling, who disgrace the profession and swindle community.

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#### PLAIN QUESTIONS AND ANSWERS.

When can natural teeth be saved?

*Ans.* In *every case* where the *fang* is healthy. So far as *possibilities* are concerned, it really matters but little how far the crown is broken down, if only the fang is solid and healthy. Of course, the *worse* they are, the more *expensive*; but first-class dental operations *always pay*.

When should they be retained, and when removed?

*Ans.* Save them in *all* cases, *when you can*. This is a safe general rule. Exceptional cases must yield to exceptional treatment. They should be removed when the evil of retaining them will be *greater* than the evil of their removal. Never be deterred from a *necessary* dental operation, either through *fear of pain* or *fear of expense*, if circumstances will otherwise allow.

Who ought to decide in difficult cases?

*Ans.* A competent dentist. If you can find *such* an one, submit yourself to his judgment; but keep a keen eye toward "land sharks" and "sharpers."

Is "*cheap dentistry*" best for the patient?

*Ans.* Rarely so. *First-class* operations are more costly at first, but generally *cheapest* in the end.

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#### A VERY COMMON ERROR CORRECTED.

About the sixth year, the first or temporary teeth begin to give place to the succeeding or permanent set, and this process of casting and replacement usually commences with the lower central incisors, or front teeth, and are followed soon after by the same class of teeth above.

Now, a very common and very mischievous impression prevails, that these second teeth appearing at this time in front are the *first of the second set that are erupted*. This is an error, and one which, in very many instances, results in the loss of four large and valuable permanent teeth, as we shall explain directly. What we wish the reader to remember here is, that many months, sometimes a year or more, previous to any of the first teeth being shed, four large permanent grinders have taken their place in the jaw immediately behind the temporary set, one on each side above and below. These are generally cut about the *fifth* year (the shedding of the first teeth commencing about the *sixth* year), and come forward and arrange themselves with the temporary set with so little inconvenience or disturbance of any kind to the child, that they attract little or no attention, and are commonly thought to belong to the first set. Now these

teeth decay early, as a general thing; and under this false notion of their being temporary teeth, are uselessly sacrificed, in the belief that, as they will in due time be replaced by others, there is no need of preserving them. Thus the child suffers permanent mutilation and lasting injury for the want of information and proper solicitude on the part of the parent. Mischief would rarely result from this source were all to recognize fully the great importance of preserving the first set, for in that case the child would be submitted to the care of a competent dentist at short intervals—say every three or four months, and timely attention would thus be given these first teeth of the second set, preventing their premature loss.

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#### GYMNASIICS AND PHYSICAL EDUCATION.

By E. ANDREWS, M. D., Prof. of Surgery in Chicago Medical College.

A good physical education involves two things, viz., the full general development of the body, and the acquirement of special skill in those physical efforts for which the person may have practical use. A man who has practiced the general exercises of a gymnasium until he has a robust and healthy frame, has done a good thing, but he has not a complete physical education until he adds to this a practical skill in using his body; that is, until he can ride a wild horse, drive, swim, row, sail, climb trees, perform the sword exercise, shoot, and do whatever other things of a physical nature he may have occasion for. There have been very inadequate notions held upon this subject, and now when efforts are being made for public improvement in this direction, the ideas of even the most advanced advocates of physical development are wofully deficient.

We used to have our old-fashioned *gymnasia* a few years ago, which claimed to give a physical training. They served a good purpose, but they had their faults. In the first place, they gave an undue prominence to the very heavy and severe exercises, so that not only were the lighter activities neglected, but the system as a whole was only adapted to the male sex;

then the practical branches of swimming, riding, shooting, etc., were for the most part omitted, and finally there was somehow around our old gymnasia a tinge of rowdyism which gradually caused their extinction. Thus ended the first effort of this generation to educate the physical frame. This subject, however, in the nature of things, could not sleep. A new system of gymnastics was developed, which has received its name from Dio Lewis, a gymnastic teacher in Boston. An institution of a very excellent character, called Powers' Academy of the New Gymnastics, has been established on this plan in Chicago, and deserves the patronage of its citizens. The new gymnastics proceed upon the principle of developing the human frame by a repetition of active motions of a lighter character than formerly, and exclude altogether those exercises which call for the full strength of the operator. The movements are all executed to music, they are varied enough to give development to all the different muscles, and finally, they are carried on by both sexes together in a way which effectually excludes rowdyism and promotes sociality. The new gymnastics are, therefore, to be praised so far as they go, and ought to be sustained; but there are serious errors sought to be inculcated in connection with them which should be combatted, and several deficiencies in the system which ought to be supplied.

The founders of the new system seem to imagine that a good selection of exercises, adapted to develop the muscles of the whole body uniformly, is of itself a complete physical education, and convey to the public a sort of idea that the gymnastic millennium has now about come.. The style of remarks indulged in is such as would lead thoughtless parents to the idea that their whole duty to their children physically is discharged when they have given them a sufficient amount of Dio Lewis' gymnastics. I protest with my whole heart against this flippant assumption. Dio Lewis' gymnastics are a good thing, so far as they go; but they are no more a complete physical education than Colburn's Mental Arithmetic is a finished intellectual education.

Your son, my dear sir, must learn to ride gracefully and without fear, for one thing. He must become a good driver,

for another. He must be able to swim in a still lake, on the stream, and in the surf. He must know how to manage a boat by oars and by sails, in still water and on the waves. He must be exercised in climbing trees, picking his way on mountain sides, and camping without a tent in the woods. He must train his eye and hand with the shot gun and the rifle. In addition to these, every well educated young man ought to be taught the manual of arms and the sword exercises.

These accomplishments cannot be obtained in a gymnasium, for two reasons: First, the amount of patronage given to these institutions does not, as yet, enable them to cover so extended a course; and, secondly, if they did, it would not be the best place. Every boy in his teens should be taken to the woods and the mountains once a year during the summer vacation, and there made to apply to practical operations the muscle developed in the winter gymnasium. There is a fire, a zest, and a forgetting of self in the exercises thus put forth, which are apt to be wanting in more regular lessons.

Another error, half implied and half expressed by those enthusiastic for the new system, is, that it is dangerous and improper for a man to use any heavy gymnastics, which require his whole force. This is going to an excess in the opposite way from the old system. I object decidedly to *dandy-fying* our physical education, so that a young man is sheepishly afraid of a big lift or a powerful leap. It is true, a man, by carelessness, may sprain an ankle or bruise a shoulder, and so he may drown when he swims, blow out his brains when he shoots, and break his neck when he gets into his saddle; but for all that, men must swim, shoot and ride, and so also they must run, leap, lift and climb. The danger in these latter cases is a mere nothing, and may be entirely avoided by reasonable care. There is also a physiological objection to the doctrine of avoiding all heavy gymnastics. The effect of frequent light efforts upon certain parts of the frame is quite different from that of full and powerful effort, and physiologically considered, no training is perfect which does not call out from time to time such exertion.

By all means, however, let the present light gymnastics be

preserved. They are essential as a *part* of a physical training, and I trust our citizens will not let the enterprise of the new academy languish for want of patronage, but let those who educate youth remember that other things also are necessary. Let the more judicious heavy exercises be restored, let the young of both sexes attend to their riding, their swimming, their skating and their boating, and let the boys be sent to the woods and to the mountains for their summer vacation.

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### ARTIFICIAL LIMBS.

Modern science and skill have wrought wonders in the production of artificial *arms* and *legs*, within the last few years. It is really surprising to think of what has been accomplished in this respect, and the perfection thus attained. In former times, the loss of a limb was reckoned among the greatest calamities, inasmuch as it involved the perpetual use of the unsightly crutch, and a dangling appendage to flap about where the limb should be. But in these days, thanks to the exquisite skill and ingenuity of man, artificial *arms* and *legs* have come to be classed among the luxuries.

All that one need to do, who is vexed with *corns*, *bunions*, *warts*, or any similar annoyance, is to call in the aid of a skillful surgeon, who, by his marvelous anesthetics, will send the patient off in rapturous dreams, and while the more ethereal part of him is reveling in the sweet elysium thus created for him, the grosser part is nicely disposed of, and the offending member removed forever. And then, forsooth, he can have a beautiful limb, moulded in a style that would shame even the Apollo Belvidere—an exquisite and charming appendage that will never *ache*, nor grow *weary*, nor have *corns*, or *bunions*, or any such thing. *Hurrah for wooden legs!*

Come all ye poor cripples and test the genius of modern invention.

#### ADVERTISEMENT.

“**T**EETH EXTRACTED WITHOUT PAIN BY ‘LAUGHING GAS,’ AND Artificial Sets, Mounted on Rubber, for ‘Ten Dollars.’ Warranted Never to Ache.”

*Nuff sed.*

**CLEFT PALATE.****MESSRS. EDITORS:**

Having lately enjoyed somewhat extended opportunities for observation upon a certain class of cases which occasionally present themselves to us for treatment, and as there will probably be an increase in their number, particularly among our soldiers, owing to gunshot wounds, necrosis, and sloughing of the parts from the effects of adjacent injuries, etc., etc., I will, at your request, give you the result of my observations, thinking that it may possibly be of benefit to some of the numerous sufferers from this cause.

The affection to which I allude is cleft-palate, and it is well known to all who have ever attempted to converse with persons in whom this deformity exists, that it is with difficulty that they can be understood, and, indeed, some are incapable of making themselves understood at all, save by their family and more immediate friends. For a long time, these sufferers were doomed to banishment from society, and in many instances to almost total seclusion, their cases being considered hopeless. But eventually a surgeon named Roux succeeded, by means of an exceedingly tedious and somewhat painful operation, in so ameliorating the condition of the least deformed of them, as to cause his operation to be generally adopted in surgical practice. During this operation, the patient was forbidden any solid food, or the use of speech, or the act of swallowing, or motion of any kind, save what was inevitable, for days together—sometimes for weeks; and after all this, the operation, so far as has been ascertained, has never been a complete success, but has only been an improvement, often only a slight one, sometimes none at all. Afterward, an instrument called an obturator was occasionally constructed and inserted by the dentist, which was applicable in many cases where the operation could not be performed; but it was never very generally adopted, for, practically, it fell far behind the desideratum. Within the last few years, improvements have been made on this system, both in France and Belgium, by the substitution of soft rubber for metal, in the construction of these instruments; and finally, by constructing a soft flexible curtain, in some particulars resembling the natural

velum (or soft palate), and attaching this so as to cover the opening, and yet not interfere with the motion of the muscles of the throat and palate.

I sought out and examined many of these patients; listened to their speech with the artificial velums in place, and also with them out; examined them, both as to their adaptation and construction; and, although the improvement was most marked, still the appliance bore the stamp of imperfection. I saw and conversed at length, and many times, with the operators in these cases, and more particularly with one to whom many of the French surgeons more often refer their hospital and other patients than to any other, and although he exhibited to me models of probably more than a hundred cases of various sorts, explained to me his mode of operating, and showed me a multitude of pieces of ingenious mechanism, I was unable to find any apparatus that exactly accomplished the desired object. To render myself comprehensible to the non-professional as well as to the professional reader, I will here say, that the indications to be fulfilled are these: an obturator, or covering for the cleft, which shall be perfectly adapted to the muscles against which it is to lie; shall be flexible—susceptible of all the motions of the velum, or soft palate itself; shall be durable; easily detached and replaced by the patient; and, in a word, shall be so under the control of the surrounding muscles when *in situ*, that the patient have the power, which in a normal state he would possess, of directing the voice at will, either through the mouth or the nasal cavity, or both, as desired.

I found nothing, however, in Europe which so completely answered these indications as an artificial velum constructed by Dr. N. W. Kingsley, of New York. I spent the greater part of several days in his office and laboratory, going over the manipulations in the different steps of the process, discussing the points which had been developed, and the difficulties which had been overcome, seeing and conversing with his patients, and carefully examining the appliances in each of their cases, and, as before stated, for the first time found the indications that I have enumerated above, fulfilled in actuality, certainly with trouble and toil, and at the expense of a vast amount of patience

to the operator, but without pain to the patient, with the certainty of benefit, and with the prospect, in most cases, of a complete cure. Beyond all this, the remedy is available for the worst cases that have thus far presented themselves, as well as for all ordinary ones, and the improvement in speech commences in some instances almost at once. Dr. Kingsley would seem to be most eminently entitled to the praise so fully awarded to him by the members of the profession for his invention.

E. A. BOGUE, M.D.

Chicago, July, 1864.

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#### TREATMENT OF ULCERATED TEETH.

By WM. A. PEASE.

Recent investigations have shown that some of the diseases are curable which before were deemed sufficient cause for the extraction of the teeth. To accomplish a cure new remedies are employed, and a new treatment adopted, which assimilate the practice of dentistry more nearly to the practice of general medicine and surgery, and create a still wider difference between the qualifications and practice of professional and mechanical dentists. In fact, rightly interpreted and carried out, they go far to supersede the necessity for artificial teeth. But this practice is attended with some difficulties, demands considerable patience and perseverance on the part of both patient and practitioner, as it has for its object the removal of disease, the restoration of impaired or the regeneration of lost tissue or bone. The death of the nerve or pulp, whether due to natural or artificial causes, may produce a gum-boil, although, if removed from the tooth, in the single-rooted teeth, the danger is slight, and after appropriate treatment, is inconsiderable in the two or more rooted teeth.

All gum-boils produce a greater or less loss of substance of the socket or jaw bone, varying from a small cavity around the end of the root, to a cavity extending over considerable surface and embracing the roots of several teeth. Sometimes disease burrows deeply into the jaw and destroys the bone of the roof of the mouth, as well as that which embraces the roots and

holds the teeth in place. Such extensive destruction of the socket is rare, although it is more frequent than was generally supposed by surgeons or dentists. It is obvious that, if a dentist can insert a filling in a cavity in a tooth that shall represent the part carried away by disease, and at the same time be incorruptible and prevent the further spread of decay, and where decay has penetrated to the nerve, and a gum-boil has resulted from it,—if that gum-boil can be healed, and the part of the socket that was destroyed can be restored, the necessity for the loss of the teeth will not be great. Even if the treatment is not carried to the extent of entire restoration of the socket, if the part is left healthy, and the discharge of pus, which consists of a watery exudation, holding particles of dead bone in solution, is stopped, a point of considerable importance is gained. This treatment may be both local and constitutional, based on the condition of the part and the general health. Of course, it may be tedious, and desired by those only who dread the loss of their teeth and disfiguration. It is to call the attention of such to the duties which will devolve upon them, and show the conditions upon which dentists consent to treat such cases, that this article is written.

As the cases where there is much loss of substance of the jaw are few, this article will be confined to the consideration of uncomplicated gum-boil, premising that, in the complicated, the treatment will be more tedious. The patient, then, may expect that a simple gum-boil near the single-rooted teeth, of recent origin, will be cured in from one to two weeks, and that he will have to visit the office every two or three days until the treatment is completed. In the back teeth the treatment will depend upon the root, where the disease is, and whether it is confined to one or more, and is simple or complicated, and the duration will be short or tedious according to circumstances. This is what the patient may expect, and that the disease will be little liable to return, unless there is great disarrangement of the health or lowering the tone of the system. On the other hand, the dentist expects the patient will implicitly follow his directions; that he will visit him at the appointed times, and do all other things necessary to ensure success. This com-

pliance and perseverance is the more necessary, because the vitality of the parts is not great, and the cure is effected by care and attention to details, which a little inattention on the part of the patient might prevent. It is better to be too sure by making a few visits too much than not enough, and have the disease return, although in a milder form. This caution is given, because some persons, annoyed by a disgusting discharge, gladly consent to treatment that will relieve them from their unpleasant condition, who, finding the discharge has disappeared, the medicine unpleasant, and the treatment somewhat annoying, discontinue their visits before the new tissues have become consolidated sufficiently to resist irritation. Others, listening to the Incapables, become discouraged, and ashamed to confess it to their dentist, slip away and has the tooth extracted. They declare the treatment was a failure, and feel injured if called upon to pay for the treatment they have received. This annoyance is no more than general practitioners are subjected to, but it is particularly annoying to dentists, trying to introduce a practice that will measurably prevent the loss of the teeth. Indeed, I have known a few instances where dentists of fair skill in this treatment, disgusted at the usage they received, abandoned the practice, declaring that if people wished their teeth extracted and new ones inserted, they could do it and receive the profit of it as well as the mechanics.

There is much in the conduct of many persons that is exceedingly annoying and discouraging to dentists, and goes far to prevent really able men from making that progress in saving the natural teeth that otherwise would. A few such discouragements to a new beginner, or a man of not very stout faith, may make him abandon the line of treatment, confine his attention to the plugging of simple cavities, if he does not fall into the opposite extreme of extracting diseased teeth generally and making artificial substitutes.

Dayton, Ohio.

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When you return to your house from a long walk, or other exhaustive exercise, go to the fire or warm room, and do not remove a single article of clothing until you have taken a cup or more of some kind of hot drink.

For the People's Dental Journal.

## PREVENTION.—No. 1.

Can every one preserve the teeth, perfect and absolute, free from disease, and consequently from pain, through life? This question, or varied forms of it, is repeatedly asked, by patients for themselves, by parents for their children, and by every one who thinks of the matter at all, of the dentist. Of course, there is but one answer; it is simply—No. But the intelligent dentist, at this day, is inexcusable if he cannot tell you that very much of the bad effect of disease of the teeth can be avoided with far more certainty than diseases of the general system. The heart, the brain, the lungs, the liver, the stomach and bowels, are each and all subject to specific and fatal diseased action, which no foresight of medical skill can prevent. The physician cannot look on the surface of these organs and say, here is a pimple which will produce consumption, or there is an engorgement of blood and bile threatening congestion, but must wait the development of symptoms *externally* evident before he ventures the trial of remedies which often come too late. On the contrary, as the destruction of a large majority of teeth lost is caused by decay, not only the dentist, but all who have eyes, can tell almost to a certainty that trouble is coming long before this decay has reached a dangerous or fatal stage. Now my dear readers, who have teeth and expect to preserve them, although no care of your own nor skill of the dentist can, in all cases, prevent the COMMENCEMENT of disease and decay of these organs, the incipient stage of this malady can be so surely detected, that much, yea, *very* much, can be done to prevent the fatal termination. This is the business of the operative dentist, and successful skill on his part in arresting decay, although it may not have reached a stage of pain and trouble to you, is more worthy of appreciation and gratitude than that which fits the finest set of artificial teeth ever made. The details of watching, careful examinations, etc., can only be taught by your dental adviser, and these lessons every intelligent and obliging dentist bestows for a very small fee. In a word, would you *prevent* the certain loss consequent on decay of the teeth—watch. “*What I say to you, I say unto all, watch.*”

**SUGAR: ITS EFFECTS UPON THE TEETH.**

Natural teeth, clean, sound and perfect, are essential to the comeliness of any human face. Defective teeth mar the handsomest features, and cause us to turn away our gaze with a kind of disgust from a countenance otherwise faultlessly beautiful. Sound teeth not only add to the comfort and personal appearance, but contribute largely to the health of all; hence special and scrupulous attention should be paid to them daily, from early childhood, from the time when the first permanent tooth makes its appearance, about the sixth year.

Every tooth in a child's head should be minutely examined by a careful, conscientious, and skillful dentist every few months; and the great importance of special attention to their cleanliness, the avoidance of the use of any "picks" harder than wood or quills, and of all dentifrices prepared by unknown hands, should be impressed upon the minds of the young with great assiduity.

Harm has been done by propagating the notion that sugar is injurious to the teeth, by diverting attention from real causes of destruction or decay. The eating of any amount of pure sugar cannot injure the teeth directly, because it has no residue; it is wholly dissolved, and passes into the stomach.

But let it be remembered that the practice of eating sugars or candies, or any other sweetmeats, largely, will inevitably cause a disorder of the stomach, and generate gases there, which will speedily undermine the health of the teeth.

By insisting too much on the fact that sugars and candies destroy the teeth, an impression will grow that if these are mainly avoided, the person so doing will have good teeth, and this leads the mind away from the necessity of keeping the mouth clean and the stomach healthful. If these things are well done, and the teeth are kept plugged in a finished style, teeth naturally or hereditarily "poor," may be kept in a good state of preservation for many years.

All forms of dyspepsia have a direct tendency to destroy the teeth. Whatever causes acidity of the stomach is ruinous to the teeth. A tablespoon of the purest syrup of loaf-sugar, taken three times a day before meals, will destroy the tone of the healthiest stomach in a very short time. And when it is remembered how many patent medicines are made up in the form of syrups and sweet lozenges, and how common the use of them has become, it need not be wondered at that every second or third person met on the street knows the meaning of "sour stomach" or dyspepsia.

So far from sugars and pure candies injuring the teeth or the health, they would, if used wisely and in moderation, as sole desserts, be actual preventives of both; especially if alternated, as desserts, with fruits and berries in their natural, raw, ripe, fresh, perfect state, by banishing from our tables the pestiferous pie, the leaden pudding, and pastries and cakes of every name, which, as desserts, always tempt to excesses which lay the foundation for diseases which torture for a lifetime, or bring speedily to the grave.

Let the spirit of this article be distinctly understood. Pure sugars and candies do not injure the teeth, except indirectly, by their injudicious use, in exciting acidity of stomach or dyspepsia, as will any other kind of food, or drink, or beverage, if extravagantly used.

At seasons of the year when fruits and berries may not be had ripe, fresh and perfect, as desserts, pure sugars and candies may be used as such in their stead to great advantage, because they are healthful, being warming, nutritious and agreeable; hence, as a table article, they are very valuable, while the almost universal love of them shows that they were intended to be eaten. If a child is not allowed to eat any thing containing sugar it will sicken and die in a very short time. Children need the carbon—the fuel contained in sugar—to keep them warm; without it, they would perish from cold; hence the

love of sweet things is an instinct, implanted by the kind and wise Maker of us all for the child's preservation. There are a parcel of stupid creatures in the world whose sole stock in trade of brains and logic amounts to this, that "whatsoever is good is unhealthy." It is not advised that children should be allowed to eat sugar and candy whenever they want it; but that as a dessert, after each regular meal, the use of pure sugars and candies would benefit, and not injure.—*Hall's Journal of Health.*

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~~Now~~ As the impression prevails to some extent that the Editors of this Journal are also its Publishers, they wish it to be understood that such is not the case. All matters pertaining to the *financial* interests of the JOURNAL are to be arranged with L. P. HASKELL, the Editors having nothing whatever to do with them.

The copies which he has sent to various parties during the present year were sent for the purpose of calling their attention to the JOURNAL, hoping that a perusal of its pages would induce them to "take the hint," and become subscribers.

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THE WOUNDED SOLDIER'S FRIEND. By CHARLES JEWETT, M. D.

We are indebted to the author for a neat little pamphlet of fifteen pages bearing the above title. It is the object of this work to teach the soldier how to improvise splint dressings for fractured limbs, so as to make them comfortable, and how to arrest profuse hemorrhage until the assistance of a surgeon can be obtained. The methods of relief described are very simple and practicable. The book is about three by five inches in size, and can be easily carried in the vest pocket; or, with a few hours' careful study, the suggestions contained in it can all be treasured up in the mind. No soldier should be without it. It costs only ten cents, and those at home who have friends in the army should see that they are supplied with a copy at once. Ten cents invested in this way may save the life of a dear friend and brave soldier, fighting for the rights of his country. For sale by John R. Walsh, No. 102 Madison street. A liberal discount made to the book trade, and those who wish to supply soldiers in the field, by companies or regiments. Address John R. Walsh, P. O. Box 4499, or the author, Box 501, Chicago, Ill.

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108 North Tenth St. above Arch.

SECOND ANNUAL SESSION, 1864-5.

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THE  
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TRIALS OF A DENTIST.

There is, perhaps, no pursuit in life wholly exempt from perplexities, discouragements, and heart-burnings, and none, perhaps, that do not require, to some extent, sacrifices and heroic self-denial. But, in all the avocations of life, we believe there is not to be found a man who is called upon so imperiously to exercise so many and varied christian virtues, as the dentist. He must be civil, patient, kind, amiable, charitable, forbearing, tolerant, forgiving, sympathetic, humane,— everything, in short, that distinguishes the christian gentleman. He is called upon to practice these and many other virtues, not alone as convenience or inclination or interests may prompt, but, unceasingly and under all the varied and trying circumstances of his laborious life, he must place them under contribution and make them do willing or unwilling service. We hold in high estimation the christian resignation and patient endurance of Job, but on the score of trials, at least, there is scarcely a dentist in the land who may not lay honest claim to equal distinction with his illustrious prototype. That it costs a dentist something to be a christian gentleman, can, perhaps, be made to appear, from a brief description of what may, and often does, occur in a single day's experience.

Mrs. A. has an engagement at nine o'clock in the morning. With a knowledge that the operation to be performed will occupy about one hour, a sitting is appointed for Mr. B. at ten o'clock. Mrs. A. makes her appearance half an hour behind time. The delay is explained to the patient's entire satisfaction. A neighbor dropped in and detained her,— or, wanting some trifling article at the store down town, thought she would just make the purchase on the way to the office— did'nt suppose a few minutes would make any difference. You tell her you have but half an hour's time at your disposal, and that it will be impossible to finish her work in time for your next engagement. Patient,

somewhat piqued, coaxingly urges you to undertake it, reminding you that she has a sick child at home,—or friends visiting her,—or her servant has left her and she is without help,—or, something of the sort that will make it impossible or very inconvenient for her to return. You are persuaded to give her the chair in the forlorn hope that Mr. B. also may be a little behind time. But Mr. B. is a punctual man of business, and at precisely ten o'clock, rings the bell, and is admitted. His time is valuable to him, and his absence from his duties involves inconvenience, and possible loss. You have hurried your first patient's work with all proper despatch, and only find it finished at a quarter past ten. You are on the point of dismissing her when your attention is called to some particular tooth which she merely wishes you to *look* at—"it won't take a minute." You examine it with a little irrepressible impatience, and give your opinion. "Now Doctor, will you please just look at this tooth far back in the lower jaw, and tell me if you think anything can be done for it," and with the corner of the mouth drawn back to facilitate your explorations, you cannot refuse to look into the mouth without giving offense. The examination is made under protest, but the patient is inexorable. The case is a complicated one, and the time at your disposal will not admit of any definite opinion. You ask her to call again and you will be more particular in the examination. You begin to experience a slight sense of relief in the reasonable expectation that now, at last, the chair will be given up, but you have cherished a delusive hope. That tooth has a long and tragic history, and with most provoking and audacious coolness, she plunges at once into particulars, until in an agony of impatience, you are compelled to exclaim, "Madam, at another time I shall be happy to give your teeth a careful examination, and hear all you have to say, but I must ask you now to yield the chair to a waiting patient who has been entitled to it for the past twenty-five minutes." You will have cause for self-congratulation, if it does not come to your ears afterwards, that this patient felt aggrieved, and considers you very disobliging if not positively uncivil and churlish. You now proceed to wait upon Mr. B., but find he has left the office in search of another dentist who is more faithful to his engagements.

In his place, however, you find a poverty-stricken, suffering patient, whose appearance precludes the idea of a fee. You extract an aching tooth. The patient, grateful for the service rendered her, makes diligent search of a soiled and worn purse, and hands you all—it may be twenty, thirty, or fifty cents.

You hand it back, saying, "I will make you no charge for this." How opportune this patient's presence. There is no anodyne so good for disordered nerves as the performance of a charitable act towards one of God's worthy poor. You have almost forgotten your previous vexation in the fervent "God bless you, sir."

Your next patient is a nervous, timid person, who wishes to have some teeth filled, but has deferred it for a long time through ill-grounded apprehensions of suffering all the tortures of the Inquisition in the operation; besides, she is very doubtful whether filling the teeth will save them after all. You have just succeeded in reassuring her, and secured her confidence with respect to the permanence and value of good dental operations, when another patient is introduced, who unceremoniously salutes you with the impatient and fretful exclamation, "Doctor, the filling you put in for me the other day has come out. Are all my fillings going to tumble out in this way?" Your cheek, for the moment, flushes with just indignation at this thoughtless and injurious speech in the presence of others who know nothing of the circumstances of the operation, but you must *act* the christian gentleman, and pocket the affront. The circumstances were such as preclude explanations, and unable, therefore, to disabuse the minds of listeners of the false impressions conveyed, they are permitted to leave your office either with their preconceived notions of the worthlessness of dental operations confirmed, or that you are a very careless or a very bungling operator. Though we could not explain in the presence of our patient, we may now to our readers. The cavity filled was, under any circumstances, very difficult to shape properly, but was rendered much more so by extreme sensitiveness. Every cut of the instrument you made, was done in the face of importunities to desist. At length, yielding in a spirit of conciliation and compassion, as the patient's exclamations became more and more impatient and irritable, you desisted just at a point where a few more cuts of the instrument, courageously endured, would have made your filling perfectly secure. Under such circumstances, the petulant and ill-timed salutation "are all my fillings going to tumble out in this way," could scarcely be construed as just or generous, but your patient is a *lady*, and has claims upon your forbearance.

The after part of the day finds you engaged upon an unusually difficult and perplexing operation, taxing, to the last degree, alike your skill and endurance. An hour or more has been occupied in filling a cavity unfavorably located, and illy formed, and all this time your attitude has been a strained, wearisome, and at

times, a painful one, while the mind has been unceasingly occupied with intense anxiety and apprehensions. The moment of the completion of the operation is one of inexpressible relief. A little rest for yourself and the patient, and you proceed to finish the filling. As the work of your hands, under file and burnisher, grows in artistic beauty, reflecting the instrument upon its polished surface, you almost forget your weariness in the conscious pride and satisfaction of the beautiful creation of your genius and skill. It is the dental artisan's crowning triumph. A last and critical examination of your work is made, when, alas, with all your care and skill and weariness, and with the old glow of gratified pride and satisfaction still lingering upon your face, a weak point is discovered,—a little, inappreciable, incomprehensible thing to all others, but a radical, fatal defect to the practiced eye and informed judgment of the true artist and accomplished expert. It is irremediable. No repairing—no patchwork will answer. The filling must come out bodily if you would be just to yourself and patient. Discouraged, and nervous with vexation and weariness, no choice is left you but to go over your work, and labor on again through two more mortal hours without thanks or remuneration.

And so on through a life replete with daily trials of temper and patience, of courage, faithfulness and endurance. What we have sketched are but feeble examples of the every-day experiences of a dentist. We have neither space nor ability to portray what every dentist is continually called upon to endure. While the patient may justly demand at his hands, the exercise of patience, sympathy, forbearance and humanity, they, also, by every consideration of justice, should extend to him who honestly strives to render to them services of inestimable value, considerate, charitable, and generous treatment.

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**WHEN CERTAIN TEETH OUGHT, AND OUGHT NOT,  
TO BE EXTRACTED, IN PREPARING A MOUTH  
FOR ARTIFICIAL SUBSTITUTES.**

Perhaps in no branch of dentistry, is a more enlightened judgment, or a more careful diagnose, requisite, than in determining what teeth should, or should not, be extracted, in preparing a mouth for artificial substitutes.

No one is willing to submit to the loss of any portion of a limb until the best medical and surgical skill has decided that

its salvation is impossible, and that stern necessity demands its removal. The loss of a hand, an arm, a foot, or a leg, is a great impediment to business, and may be reckoned among man's greatest misfortunes. But as great as may be the inconvenience arising from the loss of either of these organs, but little influence on the health of the body is occasioned thereby. The teeth, however, which stand as a guard to the temple of health, to see that nothing is allowed to pass into the stomach until it is duly prepared, so that this organ is not overtaxed in supplying the body with its proper nourishment, seem, by the masses, to be considered of as little consequence as mere toys, or the most trifling articles of merchandize. Persons, who seem to exercise good sense in regard to almost every other subject, will let the teeth decay without the least effort to save them; and as soon as they begin to cause the least inconvenience, or pain, will go deliberately to some tyro of a dentist, and from his advice, have better teeth extracted than the best dentist could ever insert in their places. In this way, thousands upon thousands of teeth, that in competent hands, could have been saved and made useful for many years, are sacrificed, in order that some quack might get a "big job" of setting artificial ones, which are, at best, but poor substitutes for the natural teeth.

In giving directions as to what teeth it is proper to extract, to give place to artificial ones, it is impossible to lay down directions that will apply in all cases. The best that can be done, is to give a sort of general rule, which must, of course, be modified to meet particular exigencies.

A natural tooth, when surrounded by good teeth, sound in its root, and not over one-third of its crown lost by decay, should never be extracted to give place to an artificial tooth. Such a tooth, when properly filled, is far better than any artificial one can be made. When the crowns of the four front teeth are so far decayed that they cannot be filled, with a fair prospect of saving them, but the roots are sound and not so far diseased in their sockets that they cannot be restored to health, and the other remaining teeth, or any considerable number of them, are sound and healthy, these roots should not be removed, but should be filed down a little below the free edges of the gums, and pivot teeth set upon them, or covered with a gold plate, mounted with artificial teeth.

No teeth control, to so great an extent, the contour and expression of the face, as the "eye" teeth, and unless their removal is absolutely essential, they should be retained. When the front

teeth are so far decayed and diseased, as to demand their extraction, and one or more of the molar or bicuspid teeth, together with the eye teeth, are in a sound and healthy condition, and standing in their proper position, they should be retained, and the intermediate spaces filled up with artificial teeth attached to a plate. The roots of these teeth are so long, that if extracted, the face always presents a more or less sunken appearance on each side of the base of the nose. Should one of these teeth, therefore, be extracted, and the other left, one side of the face would present its natural fullness and expression, the other a slightly sunken appearance. Should the mouth, therefore, present the same conditions as before mentioned, with the exception that one of the eye teeth is so far decayed that it cannot be filled, but the root healthy, the crown should be filed off, the nerve cavity filled with gold, and the plate fitted over it. But should the fang be so far diseased that it cannot be filled and restored to a healthy condition, it, together with the other eye tooth, might, perhaps, as well be extracted.

Should it be necessary to extract the four front teeth, and one or two on each side, back of the eye teeth, although the latter might be sound, yet if standing outside of a well-formed arch, or closing *inside* of the lower teeth, they had better be extracted. With these teeth out of the way, the dentist can give a better shape to the face, and make the substitute, in every way, much better, and the patient would be better pleased with the case when finished, than it would be possible to do, should these teeth be left in.

It is quite a common practice, with some dentists, when the teeth back of the eye teeth, on the lower jaw, are gone, to recommend the extraction of the remaining teeth, saying that they can make a much better job. This is a practice that cannot be too strongly condemned. When these teeth are sound, and standing in their proper position, they should never be extracted, for a skillful dentist can make a case that will set in back of these teeth, and serve the purposes of mastication well, and leave the natural front teeth standing, which are far better than any artificial ones that could be put in their places.

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 Never fail to brush the teeth thoroughly, inside and out, before retiring at night, also before going to the breakfast table, and as much oftener during the day as cleanliness requires.

## THE DUTIES OF PARENTS.

The great and paramount duty of parents is, to give their offspring "a sound mind in a sound body." Those who are conscious that they are unable to do this, have no right to become parents. This is a subject that deserves the candid and conscientious meditation of every one. It is a subject upon which a volume might be written, and read with profit by the whole community; but I propose only to make a few remarks on the theme, so far as it relates to the TEETH.

The teeth of children are not only influenced in their organization by the constitution of parents, but by the mother's daily mode of living during *embryo* life and nursing. The most perfect and robust health should be the mother's aim during the whole period. And such food should be partaken of by her, as not only seems to agree with this condition, but such food should be used as will the most perfectly develop the best quality of teeth in the child. There is rarely ever a lack of *animal* substance in the teeth, but in these days they are almost universally defective in phosphate of lime, that part which constitutes the bulk, and gives *hardness* to the enamel.

*Now it should be distinctly understood that bread made of flour, and all kinds of pastry and cake, are entirely unfit for the proper development and growth of the teeth, and are absolutely deficient in the elements which give the teeth their peculiar hardness and durability.*

What mother, knowing these facts, will voluntarily, or carelessly *starve* the little one dependent on it for nourishment, and condemn it to the misery which those suffer having decayed teeth?

Mother, have you ever endured the horrors of tooth-ache, or been subjected to the painful operations of the dentist required for their preservation? Would you save your darling from sufferings? Let your food be, then, during *gestation* and nursing, of such a character as will retain all its original elements, *as nature produced it*. Food made of the *flour* of wheat, rye, corn and other grains, is entirely unfit. The same must be said of starch, tapioca, arrow root and sago. Graham and corn bread, warm cakes of all kinds of grain, *ground to meal*, and only divested of the coarsest bran, beans, peas, potatoes, and all garden roots, fruits of all kinds, beef, mutton, eggs, (*no pork*), wild game, chickens, fish, milk, lager beer and Scotch ale, are a

variety which none should find fault with, and are found on trial to be proper and desirable.

Parents OWE THEIR CHILDREN A GOOD SET OF TEETH, and they are more *responsible* for their soundness than for their education and morals. The teeth of children are perfectly under the control of parents. Parents, do your duty; let the food of your children, as they grow to maturity, be of the character already described, avoiding tea, coffee, and spirituous liquors. As early as three years of age, learn them the use of a tooth-brush, and *enforce cleanliness* of these organs. Not later than five years of age, take your child to a capable and conscientious dentist, and have its teeth examined, and thereafter make periodical visits, not less than twice each year, for the same purpose. Put your child under his professional care, and let him understand that you expect every necessary operation to be performed, and such advice given as will ensure that child a *regular and well-preserved set of NATURAL TEETH.*

Some may object to the *expense*; but have you any more right to deny your children the blessing of good teeth, than you have of good health? If you are able to clothe them *comfortably*, and give them sufficient food, the excuse of *expense* is utterly void. What, besides a moral and intellectual education, would a grown-up son or daughter be more thankful for, than a sound or well-preserved set of teeth. If you have *anything* to give your children besides plain food and clothing, do not let them lament that you refused or neglected, in their youth, to give them sound and well-preserved dental organs.

INDEPENDENCE, IOWA.

H. S. CHASE, M. D.

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#### CARE OF THE TEETH AFTER TREATMENT.

There are two classes of persons who, entertaining extreme views of the value of dental services, are in a fair way to suffer consequences injurious to themselves. One class, though few in number it may be hoped, profess to believe that, so far as the preservation of the teeth are concerned, no material good is accomplished by the operation of filling. This opinion is entertained for the most part either by persons of very limited intelligence, or those who have suffered at the hands of dishonest and incompetent operators. The second class are those who illustrate in their personal habits the belief that everything needful to insure the permanent safety of the teeth is accomplished when

they have been repaired by filling. The one class err in having too little—the other in having too much faith. It is to the latter only, however, that we wish to address a few words of counsel and admonition.

The dentist may feel flattered by an unquestioning sort of reliance upon the work of his hands, but the best interests of the patient will hardly be consulted if he is permitted to leave with the injurious impression that, having had his teeth well filled, their safety is assured beyond a peradventure. When the dentist has done all that the best skill can do to repair injury done to teeth by decay, there still remains much to be done by the patient to assist in their permanent preservation.

Absolute cleanliness of the teeth filled, is even more important than care of those not operated upon, for the reason that the vitality of a decayed tooth is, to some extent, always impaired, hence agents which ordinarily produce decay, act with more rapidity and energy upon such than upon those of sound structure. Unusual care should be taken to cleanse all portions of the tooth immediately surrounding the filling, and especially at the borders of the latter, and the finely-polished, mirror-like surface of the filling should be kept so continually by a diligent use of the brush. If vitiated deposits of food, mucus or other matters are permitted to collect and remain about the filling, the bone immediately adjoining the margins of the filling is liable to soften and decay, and this will be especially the case if the teeth filled are naturally of a soft or perishable kind.

It is peculiarly gratifying to an operator to believe that, when his work is finished, the valuable and beneficent results of his care, labor and skill are to be entrusted to the keeping of a patient who will recognize and act upon the important conviction that the permanent preservation of the teeth depends quite as much upon his or her fidelity in the care of them after treatment, as upon his skill and pains-taking in rendering them whole.

On the other hand, every competent dentist concerned for the interests of his patient, acting under a sense of responsibility, and jealous of his reputation, will always experience discouragement in rendering his services to those whose general habits with respect to their teeth lead him to believe that if the patient were to return a week hence, he should probably be obliged to explore the mouth for some minutes to discover the locality of fillings, blurred or altogether obscured by accumulated deposits, alike disgusting and pernicious.

## IMPORTANCE OF PRESERVING THE DECIDUOUS OR FIRST TEETH.

BY C. P. FITCH, M. D.

It often happens that parents and guardians of children do not fully realize the value, neither the importance of preserving the first teeth until the time allotted by nature for their removal, which she many times accomplishes, by the slow process of loosening and throwing from the jaw. There is also, often a very serious mistake made in reference to the six-year molar teeth, regarding them of little consequence, from the fact that it is erroneously supposed, they belong to the first set, and will soon be replaced by others. Thus these last-mentioned teeth are permitted to decay, from sheer neglect, based upon either an indifference to their importance, or ignorance of their true value.

Now, the temporary teeth have as much a purpose to subserve as the permanent ones, and their preservation up to a certain period, becomes a matter of the highest moment. As this article is more particularly intended to benefit the children through the class of persons first alluded to, I hope it will accomplish its mission through the columns of the People's Dental Journal, which is, I believe, designed to educate the people.

A consideration of a few practical points will, I trust, present this subject in its true light. It may be well to state in the outset, that there are twenty deciduous or first teeth, ten in either jaw — no more, no less. The process of their eruption or cutting, as it is familiarly termed, is completed, with healthy children, between the ages of three and four; sometimes a few months earlier than the first period named, and then again a few months later than the last period mentioned. The first set of teeth embrace eight molar or double teeth, two on either side, in the upper and under mouth. These first molar teeth, when shed, are replaced by smaller ones, called bicuspids. The very moment a child has additions to the number I have mentioned, as constituting the full complement of first teeth, either by their duplication, which is accomplished by the shedding of the first set, or by the appearance of new ones posterior to the first teeth, that moment the child has teeth which belong to the second or permanent set.

The double teeth, which make their appearance in the mouth at or about the sixth year, belong to the permanent set, and are called the six-year molar teeth. It will be seen, from a moment's reflection, that these six-year molar teeth which number four, in

all, one on either side above and below, are of the highest importance, inasmuch as they belong to the permanent teeth, and their presence is directly concerned in the harmonious development of the jaw bones, thereby securing an adult, or manly, instead of a baby or youthful expression to the features.

But why preserve the first teeth? Why is it not just as well to let them decay, as they are soon to be supplemented by others which will prove more permanent in their character?

I answer, If these teeth are removed prior to the time which nature determined, the development of the jaw will be arrested, and if the growth of the jaw is interfered with, there will not be sufficient room in the proper dental circle of the arch for the second set of teeth; hence an irregular, permanent denture is the inevitable consequence.

In this connection, it may be well to note the time that the deciduous teeth naturally fall from the jaw, or should be expected to do so. This occurs, with the four front teeth, between the ages of seven and nine; with the molars, between the ninth and twelfth years; and with the eye teeth, from ten to fourteen.

The vigor and precociousness of the child will determine very much the time for the shedding of these teeth. A very good general rule to be observed in reference to any of the deciduous teeth, is, that they should never be removed until they get loose. There are instances, where it would not be well to wait for this result; but any intelligent dentist will solve the question at once by seeing the child. In the process of growth of the second teeth, the roots of the first teeth are absorbed, and the teeth consequently loosen, about the time the second teeth make their appearance. But it is sometimes the case, from one cause and another, either for the want of room in the jaw, or from some peculiar conformation of the parts, or on account of a freak of nature attending facial development, that the second teeth make their appearance outside of their true position. Whenever this occurs to any extent, the roots of the first teeth are not absorbed, and consequently these teeth do not become loose. But it always will be safe to remove them whenever they become loose, and on the appearance of the second teeth which are intended to take their place. This, as a general thing, will prove safe practice.

Another reason for the preservation of the first teeth, until the conditions just alluded to are observed, is, that it saves the child from much pain and suffering. If the pulp of the first teeth are prematurely exposed from the tooth's decomposition, the patient is, many times, subjected to great torture and pro-

tracted suffering. Now this is wholly unnecessary. By timely filling these teeth, this sad result will be entirely prevented.

Another reason for their preservation in a healthy condition. The decay of the first teeth, if it is attended with much pain, (and it generally is, after the exposure of the pulp or nerve,) necessarily produces great derangement of the nervous force, which force presides over the growth of the body. Now in order to the harmonious and proper development of the different structures composing the body, it is quite essential that the equilibrium or harmonious action of this force be strictly maintained; especially is this necessary during this very active formative period. No doubt in many instances, imperfect developed bodies, and frail physical constitutions, are the direct results of this disturbance or perversion of the nervous force, arising from pain, experienced in connection with or caused from a diseased condition of the first teeth.

Another reason for their preservation. The body at this period is growing rapidly, and makes imperious demands for the proper nutrient supply. The office of the teeth is to comminute or masticate the food. If this is not properly secured, extra labor is thrown upon the stomach, often engendering much gastric derangement. Thus, the food is but partially digested, and the subsequent act of assimilation, or the appropriation of this food, is materially interfered with. The result of all this is, the partial starvation of the body; not a sufficient supply of nutrition is provided, at least for promoting and securing healthy structural development.

Another reason. This is a period when the child learns to talk. All children naturally have voice; but they must be taught, before they can make articulate sounds or speech. This is a mechanical act. The presence of these teeth in the mouth, in a healthy condition, is quite necessary, in order to the attainment of the most perfect results in this direction. What parent's heart does not pulsate with joyful emotions, at the first intelligent prattling of their darling. Would you secure early perfection of oral language, take care of the first teeth of your children.

Many reflections of a practical nature might be deduced from the above considerations. But perhaps sufficient has been said to subserve the purpose I had in view in penning this article, viz., calling the attention of parents and guardians to the great importance of preserving, in a healthy condition, the first or deciduous teeth of their children, or of those committed to their care.

NEW YORK, May 26, 1864.

## LIFE IN OFFICES AND COUNTING ROOMS.

BY E. ANDREWS, M. D.,

*Professor of Surgery in Chicago Medical College.*

A considerable number of men die, or are disabled every year in Chicago by the deleterious effects of office life. There is an evil here which the mercantile classes ought to be warned of, and induced to correct, and the more earnestly do I desire to point it out, because the victims of it are generally the most industrious and thorough portion of our merchants and their office clerks. The evil complained of is two-fold, one part consisting of excessive and continuous mental labor, resulting in brain exhaustion, and the other, of inhaling foul, confined office air, resulting in blood poisoning, and consequent risk of death in a multitude of modes.

Brain exhaustion, in its pure form, is more frequently seen in the proprietor or head manager of an establishment than in the office clerks. This results from the heavy personal interests he has at stake, causing him to become totally absorbed in his enterprise, and goading him on to such excessive, unremitting toil at the desk as ultimately breaks him down. The symptoms in these cases are so clear that the physician can tell without inquiry that the brain has been over-worked. The disease is commonly called nervous fever. The patient is mostly confined to his bed, is excessively restless and worn, sleeps badly, tongue not very foul, but the pulse is feeble and rapid. The most striking symptom, however, is a whining peevishness, a sort of childish, fretful, low spirits, "like a sick girl," as the poet has it, and which is altogether foreign to the man's usual manner, in fact bordering on temporary insanity. Some of these patients are past help from the outset, and some die, but the majority make a slow and tedious recovery.

It is worthy of notice that this disease, though produced by excessive mental effort, yet seldom attacks any except those who work in close offices. Men who are engaged out of doors, or in perfectly fresh air, seldom get it, however severely and continuously they may exercise their minds.

The second evil is blood poisoning from foul air. A merchant hires a store on South Water street, where it has the full benefit of the fragrance of Chicago river to begin with. Then it is twenty-five feet wide and one hundred and fifty feet long. It has just two openings for ventilation, viz., the front door, opening on

a crowded street, and the back door, opening on a narrow, offensive, dirty alley. It is fair to presume two things: 1st, that no perfectly pure air ever gets into the store at all; 2nd, that what does come in only gets a lazy, imperfect circulation among the boxes, bales and barrels. When I was in the army I saw several such stores taken for hospitals, with the invariable result that the patients died by scores from the effects of foul air. It was found impossible to ventilate sufficiently such long apartments, with openings only at the ends. In this confined air, therefore, the clerks, porters and customers, breathe and perspire all day long, adding new poison to air which was none too good in the beginning. But the worst is yet to be told. The proprietor of this enclosure of foul air does not deem the general atmosphere of the store even yet quite bad enough for his own personal use. He therefore cribs off a small counting-room, with glass partitions, in such a situation that it only gets air from the interior of the store. In this little room he locates himself, his partners, his book-keeper, his corresponding clerk, etc. If there are any remaining whiffs of air in the room fit to breathe, they are all used up by ten o'clock in the morning. These are the merchants who have nervous fever. These are the young, ambitious, hard-working clerks and book-keepers, who grow pale, who have dyspepsia, and cannot be cured by the doctor, who have typhoid fever, and are laid up six months, who fall into consumption, who have besides forty troubles, and cannot get cured.

Such men come to me, who actually work ten hours a day in a poisoned atmosphere, and then take their books home to work at them evenings. I say to such persons, "I shall not try to cure you now; you are going the sure road to death, and if I prop you up a little longer, to enable you to go on in the same course, it will only make the final result more sure and irremediable. The quicker your health breaks down, and obliges you to stop such a course of existence, the better chance you will have of final recovery."

I know not what mechanical arrangements would be best adapted to ventilate our stores and offices, but I have seen numerous establishments where the loss of time and efficiency by the proprietor and employees would every year almost pay for a fan blower, and a steam engine to propel it.

## SALIVARY CALCULUS, OR TARTAR.

Tartar is a calcareous or chalk-like substance deposited from the saliva, and is found most abundant at points where the ducts leading from the salivary glands enter the mouth, as upon the inside of the lower teeth, and on the outside of the upper teeth, under the cheeks. It is deposited first at the necks of the teeth, extending under the free margins of the gums; but if the saliva is largely impregnated with it, or if the teeth have been much neglected, it encroaches upon the crowns, and in some cases the latter become wholly encrusted with a layer of greater or less thickness.

The character of this deposit differs in different individuals, being of various shades of color and consistence. In some, it is light colored, and of a soft, cheesy consistence; in others, black, and of extreme hardness; and between these extremes exist almost every shade of color and consistence. The light colored and softer varieties are generally easily removed, but the harder and darker kinds usually adhere with great tenacity to the teeth, and are sometimes removed with difficulty.

Tartar has no directly injurious effect upon that portion of the bone of the tooth with which it lies in contact, but is very destructive upon the gums, sockets, and membranes surrounding the roots. It produces a low grade of inflammation of the margins of the gum in contact with it, which are gradually absorbed or waste away. This absorption also extends to the bony sockets of the teeth, and as these are destroyed, the teeth gradually loosen and are ultimately lost.

The presence of any considerable amount of this deposit affects the breath unpleasantly, rendering it impure, and if in large quantities, it becomes exceedingly offensive.

Tartar should never be allowed to accumulate upon the teeth. Those subject to soft, gummy accumulations, can, in a great measure, prevent any permanent deposits by a frequent and vigorous use of a tooth brush, and, indeed, very much may be done in this way to prevent altogether a deposit of all the varieties of this substance, or at least to diminish their quantity. But where a strong predisposition to the formation of tartar exists, as it does in many instances, it will accumulate in spite of the brush, and it must then be thoroughly removed with suitable instruments constructed for that purpose. This operation is apparently a very simple one, but a careless or unskillful person may inflict serious injury upon the enamel, or wound unnecessarily the soft parts

about the necks of the teeth. A careful and competent operator will never do either. There is, indeed, no operation in dentistry, however seemingly unimportant, that should not be entrusted to the best attainable skill for its performance, and the community will best promote their own interests when they recognize and act upon this important fact.

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### CARE OF ARTIFICIAL TEETH.

Many people seem to think that artificial teeth require no care, and once in possession of a full set of the substitute for nature's organs, they can henceforth dispense with the tooth brush, and oftentimes for months, and even years, the accumulation of matter is allowed to go on, till the wonder is how it can be endured. To be sure, the set is occasionally hastily rinsed, after a meal, but this only removes the recently accumulated particles of food, and leaves the previous accumulations of mucus, tartar and food, closely adhering to the plate. It would seem as though a proper regard for cleanliness would induce any individual to keep an article worn in the mouth clean, but when it is remembered that the *odor* arising therefrom, is exceedingly offensive to any one who comes in contact with the individual, it is strange that this last consideration does not at once produce a remedy.

Tartar will adhere to artificial teeth nearly as readily as to the natural, and unless care is taken to clean the teeth and plate every day with a stiff brush, (and in mouths especially liable to a deposit of tartar, to use, once a week or oftener, some fine grit, like chalk, rottenstone, or fine pumice, applied with a cloth,) in a short time there will be such an accumulation of tartar as will require the aid of acid or an instrument to remove.

As many sets of teeth are broken in the act of cleaning, and this is especially true of the Continuous Gum work, as it is heavy and very slippery when wet, I will give some directions for cleaning.

Never clean a set of teeth over a wash-bowl, because if it slips from your grasp, and the ends of the teeth strike the bowl, they will inevitably be broken. The better plan is to sit down and spread a towel in the lap, and then you can safely proceed with the cleaning process. If while in this position, the piece should slip from the hand, it will fall into the lap, and no harm will be done.

The Rubber work now so generally worn, is, from some cause,

peculiarly liable to an accumulation of mucus, which it is difficult to remove with the brush, but requires, once a week, the use of a cloth and fine grit.

The practice, so common, of placing the teeth in a dish of water, over night, should be abandoned, as it does no good whatever, and many teeth are broken by allowing them to drop heavily into the dish.

H.

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In the last number of the Journal we promised to furnish our readers with the likeness of a *Quack*, but the picture has been drawn with such fidelity to nature, by another and better artist, that we offer it without hesitation, as a glowing and truthful delineation, and hope it will be thoughtfully read by all. The following are extracts from an address delivered before the "AMERICAN DENTAL CONVENTION," by Dr. E. T. WILSON, of Boston, Massachusetts.

#### "DENTAL QUACKS.

"'Quack,' I believe, comes from a Teutonic word 'quacken,' and to 'quack' means 'to cry like a duck,' that is, to make a great deal of noise; to brag loudly and to talk ostentatiously.

"But we have this feathered Bobadil at an advantage. He cannot advertise in the newspapers; he cannot condense his professional acquirements within an almanac; and, as his friends and fellow-citizens have no teeth to extract, he cannot exhibit his extraordinary talents by setting up as a dentist. So he is confined to his private puddle, where I am uncharitable enough to wish we could keep some of his featherless imitators, upon a low diet of their own amalgams. For, gentlemen, I am vain enough to believe that *our* quacks are more mischievous, more ignorant and more impudent than any others in the world. I will back almost any one of the noble army of self-styled 'dentists,' with his puffs about painless operations,—with his Golgotha of a showcase,—with his pocket full of stumps which he never extracted,—with his dentifice, called by a hard Greek name, and which will probably extract teeth much faster than he can,—with his circulars, illustrated by magnified photographs of insects which are supposed to reside in and about the dental organism, until this scientific gentleman gives them notice to quit,—with his sliding scale of prices, always in accordance with the times,—I say, I will back this miraculous person against quacks in the pulpit, quacks at the bar,—in a word, quacks in general. I did intend to make an exception in favor of the scientific creatures who discover and dispense Vegetable Bitters, popularly supposed to be able to create an appetite under the ribs of death; but these gentlemen, it must be remembered, kindly alleviate the sufferings

of those who have been deprived of the power of mastication, by taking away the desire or power to masticate at all: for if some of those unfortunate patients who have yielded to the seductions of puffs and powders and cheap artificial dentures, with a base of cheaper plate, were only as hungry as their mouths are hideous, I do not know which would be the most uncomfortable—their jaws or their stomachs. I think we may, without suspicion of maudlin sympathy, sincerely pity the sorrows of the person, whether old or young, who may have fallen into the hands of the individual whose acquirements I am sketching, or some more brilliant flourisher of the forceps who lives not by *skinning* his teeth, but by *skinning* the teeth of other people,—of some renovator, who gets his patients into a terrible scrape,—of some noisy blower of his own trumpet, who first fills the ears of his victims with words, and then *stuff's* their teeth with something a great deal worse, so that life for them can have no charms, except those which are purchased at the cost of perpetual and expensive etherization.

"I do pity these unfortunates. I am not much given to the melting mood, except in my laboratory; but when I meet one of these victims, my sympathies are aroused in consequence of the delusion under which they have been laboring,—that they did not come to you or I, and then that he or she went to the other man, who undoubtedly told him that we were extortioners, charlatans, and clumsey fellows, because we do not furnish the community with almanacs; do not inform the world of our prodigious talents, through the medium of the newspapers; do not demand a certificate of skill every time we extract a tooth; do not keep a museum of our handiwork; nor do we make venerable teeth sound by the use of the 'Odontalgic Rejuvenator.' I suppose, gentlemen, upon the whole, it is much easier and much more profitable to be a quack.

"I have known men who could scarcely tell the superior maxillary nerve from a chalk line, which they had been accustomed to use in their manipulations upon ship timber; neither could they tell the inferior dental nerve from a rope which should have encircled their necks. They could possibly distinguish between a *dental* and *copaiva* capsule, but did not know whether nature gives us thirty-two teeth or thirty-seven and a half; who could not distinguish between a cuspid and a molar tooth, and who supposed that the incisors were the small bones of the ear; who thought that great men have eight wisdom teeth,—men of ordinary talents, five, and fools like themselves, none at all. I have known such fellows to make money, dupes and fame, while gentlemen of worth, and scholarship and skill were barely making a living. The practitioner who makes a noise—who has seven square feet of door-plate, two night-bells, one knocker, and a speaking tube,—who has certificates of his skill from presidents and parsons and governors and senators, who never saw him, and never want to see him,—who is mentioned in the newspapers as having on Thursday last, performed a wonderful operation upon one of our first citizens, amputating the *os hyoides*,

excising the *parotid* gland, sawing out two-thirds of the lower jaw, and removing six ounces of tumor from the pharynx, after which the patient went home and ate a hearty dinner; *that* is the practitioner for the people's money. He scrapes, and pulls and excavates; he has his windows open, that passers-by may smell ether, and listen to the howls of his victims; he becomes famous for giving the greatest amount of pain for the smallest amount of money; he works cheaply, talks cheaply, and is altogether a cheap person. When he is exposed, he cries out that he is persecuted; and he is all along sure that the time will come when people will be weary of exposing him. He goes on, however, puffing himself. He informs a world, suffering from toothache, that it can be cured in one-sixtieth of a second, and under no possible circumstances can it return. Price twelve and a half cents. Fangs extracted for twenty-five cents. Simple *soft* fillings inserted for two shillings; *amalgam* fillings, one dollar; gold fillings, ditto. A small advance will be expected on all compound and internal fillings. He hangs an enormous and gilded tooth over his door, but forgets to add the well known inscription: 'Leave hope behind you, you who enter here;' for if he had any caution to utter, it would be, 'Don't forget to remember your pocket-books.'

"I dare say his victims are good people; but if their teeth are hard to extract, they are themselves susceptible of very soft influences; and I do not think it would do our friend any harm if he consulted his books, if he has any, before consulting the sign painter, and practice on the craniums of the departed, before he half killed the living. Something more is required in embracing our profession, than a small stock of foil, an operating chair and a spittoon, half a pint of teeth, a lathe, a few ivory-handled pluggers, and the last new compound *screw* forcep, with a treatise on Dental Surgery on the side-table, and a bottle of ether on the shelf. I know that a first rate chair is very imposing, and that a case of shining instruments, which some take so much pride in displaying, has a thrilling effect upon the nerves of the patient. But I confess I never see a fine case of instruments, clean, bright, sharp and well arranged, without putting up a silent prayer that the same Providence which usually keeps little boys with their pockets full of matches from gunpowder, will interpose to preserve the whole collection from the hands of a blunderer.

"You may have heard of the man who called himself a surgeon, because he owned a beautiful case of amputating instruments, and did not discover his error until he was prosecuted for cutting off the *wrong leg*. I do not care how fine a fiddle a man has,—its value does not enable him to rival Paganini or Ole Bull.

"The life and soul of a quack business is ostentation. A modest man will plant himself upon his merits, and will wait for the world to come to him; and I believe I am safe in saying, that, as a general rule, the most meritorious man will be found to be the most modest. It is ignorance, and pretension, and assump-

tion, and wild and headstrong arrogance, which seeks by adventitious arts to atone for gross deficiencies; which attempts, by bluster and display, to blind society to professional incompetency. It is the want of dexterity and skill which impels a practitioner to tell what he can do, instead of doing it silently and surely, and trusting to his handiwork as the voucher for his ability.

"A charlatan's horn may be very long, and its voice very loud, and his wind as endless as a New England north-easter, but he must have brains as well as lungs, if he would produce music; and perhaps he will do quite as well if he does not always make his own profession the theme of his performances. But it is more sensible,—it will be more agreeable to our fellow-creatures, and we shall be more likely to make real advances in our profession, if we keep tolerably quiet, relying upon doing well whatever our hands may find to do. One patient, skillfully and permanently relieved, becomes your friend and patient forever after; and you will probably fill, extract and set for his whole family,—for his children, and if you live long enough, for his grandchildren, to say nothing of the collateral advantage which you will derive from the smiles of his uncles, aunts and cousins. The best advertisement a dentist can have, is a thorough piece of work, for his patient cannot smile or speak, cannot eat, and cannot even yawn without advertising him in the best, and puffing him in the only tolerable way. As for his patients' private and personal gratitude, there will be no end of it. When he eats his Thanksgiving dinner, when he speaks in the pulpit, the bar and the forum, or in any other public place, he sits down or rises only to call you blessed. The gratitude of such a friend is worth having, whether he pays his bill without growling, or does not pay it at all.

"I am not sure that quackery has not flourished most formidably since the quacks ceased to be peripatetic and betook themselves to local habitations; I care not where; in Five Points or on the Fifth Avenue, in North street, or under the shadow of the Massachusetts state-house. To be sure, an empiric is an empiric, whether he hides himself in a dingy den, with a private entrance for the modest, or puts out a shingle longer than himself in some more reputable locality. But a quack, with a local status, who catches one dupe, sometimes contrives to catch a great many before he finally explodes and vanishes and makes room for another ignoramus and blunderer, who will, in turn, make room for a third.

"The dentist who attends militia musters and cattle shows; whose stock in trade consists of a bottle of colored acid and a bit of leather, and who cleans teeth in ten seconds, undoubtedly humbugs the bumpkins, but he does not cheat the best people, because they are not there. But put him, with his fluent tongue, his inexhaustible impudence and his sublime disregard of truth and morality, in some fashionable quarter of a great city, and he will be pretty sure to do irreparable injury to many teeth which a conscientious practitioner is interested in preserving.

"It is all well enough to talk about intelligence, but I have known very intelligent people who took pecks of patent pills;

swallowed gallons of panaceas, drenched themselves with oceans of infallible tinctures, wore magnetic rings, encased themselves in magnetic plasters, tortured themselves with galvanic batteries, and, finally, physicked themselves into another, and we hope a better land. I have known clergymen, (at least, men calling themselves such,) who certified to the almost incredible virtues of some concentrated bottle of fluid dirtiness,—who declared, over their own sign-manual, that they had been cured of dyspepsia, that one of their parishioners had been cured of a number of Job's comforters, another of typhoid fever, and a third of neuralgia, by the same precious compound.

"These good men—I admit there are some honorable exceptions to the rule—have a tender regard for, and will puff almost any quack who has discovered a new dentifrice, a pretended painless method of operation, or some amalgam which, put into the cavity of a tooth, immediately turns to dentine; in return for which this grateful quack is ready to depopulate their own mouths and the mouths of their families, without the aggravation of a bill.

"I suppose that I shall not get much credit for disinterestedness in declaring, but I do solemnly declare that they who thus play upon public credulity in one thing are not to be trusted in *anything*. I should be sorry to have any woman whom I loved or respected, at the mercy of their coarse natures and their ether, chloroform or brandy. I would beseech the pure and good to shun them; to avoid them with a closer vigilance; since no wild outcry of anguish or shame can, after their infernal tampering, summon the good or the generous to the rescue of outraged honor. I am not speaking of what may be,—I am making plain allusions to what has been,—to facts. I do not know that such things should astonish us, for a man who will do *anything* for lucre will do *anything* for lust, if his base inclinations are in that lowest and most repulsive of all possible directions."

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## PROFESSIONAL FEES.

An Essay read before the Iowa State Dental Society, at Davenport, Iowa, August 10, 1864.

BY L. C. INGERSOLL.

In presenting an essay on this subject it is not my purpose to offer a *fee bill*—but to state some general principles, and to show the relation of Dental Fees to Dentistry.

Money can never be made a measure of values. The value of bread, water, apparel, education, nor anything necessary in securing these, can be counted in dollars and dimes. A dime may purchase that which will be of a value to me beyond any computation. In a moment of time of trifling importance, it is pos-

sible to render incalculable service to a fellow mortal. Hence it will be seen, that in the price paid for anything there is no aim at rendering an equivalent — that no graduation of prices, either in commercial transactions or professional services, can ever be made on the scale of equivalents. Prices, therefore, are merely nominal in respect of value. Value is the estimate which the community put upon one thing proportionately with other things. And the price paid is an expression, relatively, of that estimate. One places a high estimate on the teeth, and expresses that estimate by a willingness to pay two, three, five, or twenty-five dollars to preserve a failing one. Another, placing a low estimate on the same, would be unwilling to pay more than half a dollar to save it. For, at the expense of half a dollar the troublesome member can be got rid of entirely.

Money is demanded as a price, not for any intrinsic value it possesses, but as a mere matter of convenience. What I want is wood, meat, butter, dry goods, house and home. But it is not convenient at a specified time, for me to receive them. So I demand *money*, which is made the representative of all values, and this enables me to obtain the articles needed when and where it is convenient.

There are in the country great staple commodities in which is invested almost the entire capital of the country, and in the exchange and transfer of these, the interests of commerce are chiefly engaged. The price of these commodities is regulated on the principle of supply and demand. When supply is less than demand, the price goes up — when greater than demand, the price goes down. This principle applies to and regulates all articles of prime necessity. In the production of these, physical labor and mechanical force are the chief agents.

But outside of and beyond the lists of commercial commodities is a vast range where enlightened, cultivated, and refined society makes its demand, and offers its rewards. In the domains of literature, science, art, and the higher grades of artisan skill, there is not the same relation of price to things demanding price. Here price is not regulated by *supply and demand*. Over this vast domain, *supply* can never equal *demand*. For the thing demanded is not measured nor weighed, so much for so much. To illustrate: in a field of corn it is days of labor that are sold; in the field of science it is fact and principle that demand the price. The price of manual labor is so much per day; the price of a book is the same whether in the production of it thirty days or one hundred days were required. Because, it is the matter

contained in the book that is sold, and not the labor bestowed upon it. In the field of science it is results that command the price. In one case years are spent, a fortune and a lifetime are exhausted, without arriving at the desired result. For this, society pays nothing. Another by half an hour's thought obtains it. This success is a fortune to him. Who will attempt to measure out to him his success as a commodity, and propose pay according to time spent?

The demand of society for scientific research is unlimited. Hence, supply can never equal the demand. The demand of society for medical skill is so great that the medical man will never meet it. The demand upon the lawyer and statesman is such that none have ever been wise or learned enough to say, 'we can supply the demand.' For, be it remembered, the demand is not for books, but for instruction — not for printed sheets, but for thoughts — not for lawyers, but for legal intelligence — not for medical men, but for medical ability — not for dentists, but for dental skill. Let society in any town be questioned as to the demand for more lawyers, or doctors, or dentists, and the answer will be, 'we are supplied.' If the question be as to the demand for more legal intelligence, more medical ability, more dental skill, the reply will be, 'we greatly need it.' Such accessions to the profession in any community, would be appreciated and rewarded. A surgeon of wide reputation, based upon a wonderful success in his operations, was invited by a lady to come to her house to open an abscess. The operation was performed in a moment's time, and with a surprising delicacy of touch. When the charge of five dollars was announced, the lady opened big eyes, and wondered how he could charge so much for what had given him so little trouble. He replied "I charge you, madam, not *for what I do*, but *for what I know.*" This, then, is the peg on which the professional fee bill hangs. This surgeon had taught his knife when, where, and how far to cut — to draw blood or pus only, at will. *For this* he charged, whether the knife was employed to open a boil, or to amputate a leg. If a lawyer could do up his opinions in packages, at his leisure, and in advance of the application for them, he could sell his opinions to his clients by the bundle, as a commodity. If a physician could foresee all the sickness which would befall the families of his patrons for years to come, and give his advice, and write his prescriptions in advance, he could sell his advice as a commodity. But every case is a special case, demanding attention according to a variety of ever changing circumstances and conditions. So the professional

man does not sell his books to his clients and patrons, but *his opinions and advice*. He does not charge for the ten minutes time employed; but for the *advice* itself. So the dentist does not make his charge on the basis of ten, twenty or fifty pounds of strength employed in a given operation — nor on the scale of a few minutes or a few hours time occupied — nor for high or low priced instruments used — nor chiefly for more or less material consumed — but mainly, for his knowledge of what ought to be done, and for the acquired skill and experience employed in accomplishing it. In medicine, this principle is very generally recognized, and a fee is charged, whether medicine is given or not. We must by some measures arrive, ultimately, at the same principle in dentistry — so that when a dentist confers a greater favor by counsel than by manual operation, he shall be rewarded for it. Where application is made for the extraction of a tooth, and the dentist advises treatment, and gives definite directions for the preservation of the tooth, he certainly is entitled to the same fee for saving the tooth that he would be for sacrificing it. We have arrived, then, in the consideration of the subject, negatively, to these conclusions: that professional fees cannot be regulated on the scale of equivalents — nor on the scales of commodities, the price of which change from year to year, from week to week, or even from day to day, according to the principle of *supply and demand*; that time and manual labor, while they may modify the rate of professional fees, do not furnish a standard by which to govern the scale.

Let us now turn to the affirmative of the question.

The ability of man to do, springs from two sources — his physical and his mental powers. From these two classes of powers arise two classes of employments — physical aided by the mental, and the mental, aided by the physical or mechanical. To the former belong the mechanic arts and the trades. To the latter belong the professions. To success in the former, muscular force and manual dexterity are the starting points. To success in the latter, that development of the mental powers which we style education. We may aver with positiveness that a liberal education is the *sine qua non* of success in any of the professions. A man begins a trade with *tools* — he begins a profession with *books*.

Dentistry takes rank among the more noble of the professions. Not as a pursuit wholly mental, like the profession of law; but both mental and manual, like the professions of medicine and surgery — and is governed by the same standards.

In the trades there must ever be a higgling, and wriggling, and wrangling, and running up and down of prices. In the professions, honorable and high-minded dealing, based upon integrity and professional ability, on the one hand, and an appreciation of invaluable services, on the other hand, render it both distasteful and dishonorable to bid and underbid, and make sales of professional ability as a commodity. If this is otherwise with the dentists in any community, it is because the dentists are tradesmen, and hucksters, and not professional gentlemen. Where this is the case, dentists must come to a higher appreciation of themselves and their calling, and it will be responded to by a higher respect of the community, and an abundant pecuniary reward.

In some parts of Germany, professional fees are not a specific and definite charge, but are left as a point of honor with every man to reward professional services according to his ability and his appreciation of their value. There have been cases in this country of men paying to a dentist, voluntarily, under the promptings of gratitude and a recognition of superior skill, three, four, or even fifty times the fee charged. This shows that enlightened and cultivated society, which is the particular field inviting dental operations, does, to some extent, appreciate skill which relieves from suffering, saves from decay, and restores to use any disordered part of the human body—and that time and manual labor are not always to be taken into account in making up a charge for professional services.

The minor operations of dentistry are performed for all classes of society. But the more skillful, difficult, and delicate operations are performed chiefly for the more intelligent and refined part of society. In fact dentistry, as a profession, was called into being by this class. Teeth have ever been a studied adornment in elegant society—and the dentist, to fill his place acceptably, must himself rank socially where his profession finds its most important patronage. To be qualified for such a position in society, requires of the dentist, that he be thoroughly educated in his profession—that he keep himself posted in all the improvements and new methods of operating, by taking the best Dental Journals—that he be acquainted in the field of general science and current literature, whence cultivated and intelligent society gathers themes of conversation. But all this costs money. It requires an income. Every dentist, therefore, who sets before himself a high standard of professional success, or who has already gained it, must, of necessity, have in view the *entire cost* when

he graduates his fee-bill. His annual income must be such as will enable him to stand on the level of cultivated and refined society that gave birth to his profession — and such as will enable him to pursue that profession according to the highest standard of cultivated taste and acquired skill. In this way only can he with the best acceptance, serve his patrons. He must not only desire the best success, but so love complete and perfect operations, that this very love of artistic skill in dentistry, will stimulate him to do for his patrons at all times, the best possible. Thus while he guards his professional reputation from decline, he protects his patrons from being dismissed from his office with something from the dentist's hand of inferior quality, which does not meet their high expectation. But this love of complete manipulation and artistic skill, needs itself to be stimulated, or soon the fire goes out. Very few will labor assiduously from the mere love of labor — few pursue science for the mere love of science — few persistently strive to excel from the mere love of perfect operations. The world has universally conceded the value of rewards and premiums even in keeping alive the most enthusiastic love of noble pursuits. When the dentist knows that his efforts will be appreciated, and rewarded pecuniarily according to the completeness of his work, he labors with increasing earnestness, and is daily outstripping himself in his successes. But on the other hand, if he is poorly compensated for his skill, and he suffers himself to be, in common parlance, *beat down to the lowest figure*, one stimulus *to do his best* is gone — and he at length falls into the habit of grading down the quality of his operations to this low-priced level — to his own discredit as a reliable dentist, to the dishonor of the profession, to the damage of his patrons, and to the ultimate damage of his own pecuniary interests. He must strive, first of all, for a reputation based upon superior dental skill. Having gained it, it is his capital in a professional business which will give him a successful practice anywhere, in spite of all dishonorable competition. When the dentists of this State will properly appreciate themselves, their calling and their services, and cease to traffic and barter like market hucksters, we shall arrive at the end of a disgraceful war of prices, and find that in the esteem of the community, a well-regulated, moderate fee-bill will be an honor to every dentist who subscribes to it — and by so doing, we shall sound the note of professional harmony throughout the State.

KEOKUK, Iowa, Aug. 10, 1864.

## GONE TO NEW YORK.

Dr. E. A. BOGUE, who has been practicing Dentistry in Chicago for the last nine years, has gone to New York, to practice his profession. He enters the office of Dr. Norman B. Kingsly, who, besides enjoying a commendable reputation with the profession, as a practitioner, has of late become noted as the inventor of a new, and the most useful artificial palate ever before made.

Just before leaving for New York, Dr. Bogue inserted one of these palates for a young man of this city, and sent him to the Chicago editor of this journal, so that he could see it in practical operation in the mouth. It was not only a good fit, and worn with comfort, but the speech was much improved, and the case, in every way, answered well the purpose for which it was intended. Dr Bogue leaves behind him many friends and patients, who part with him with regret, and hope for his success in his new home.

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[ AMERICAN DENTAL ASSOCIATION.—This Association holds its next annual session at Chicago, on the last Tuesday of July, 1865.

The officers are: President, Dr. J. H. McQuillen, Philadelphia; First Vice President, Dr. C. P. Fitch, New York; Second Vice President, Dr. H. Benedict, Detroit; Corresponding Secretary, Dr. Geo. W. Ellis, Philadelphia; Recording Secretary, Dr. J. Taft, Cincinnati; Treasurer, Dr. I. J. Wetherbee, Boston.

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AMERICAN DENTAL CONVENTION.—This Convention meets at White Sulphur Springs, Ohio, on the first Tuesday of August, 1865, at 10 A. M.

The officers are: President, Dr. W. W. Allport, Chicago; Vice President, Dr. H. T. Bishop, Worcester, Massachusetts; Recording Secretary, Dr. G. W. Ellis, Philadelphia; Corresponding Secretary, Dr. W. H. Allen, New York; Treasurer, Dr. H. Benedict, Detroit.

THREE IMPOSSIBILITIES.—An eminent writer has truly said, “To overestimate the greatness of redeeming love. To overestimate the joys which God hath prepared for those who love him. To overestimate the obligation under which we are laid to consecrate our time, our talents, our fortunes, and all that we have and are, to the promotion of God’s glory, and the happiness of our fellow-men. With such a consecration, no man has ever avowed, or ever can say, on a dying bed, that if he had his life to live over again, he would serve his Maker less zealously, and would do less for his country and his kind.

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A GREAT DIETETIC TRUTH.—The distinction between natural and artificial aliments, tonics, invigorators, etc., is this: the same amount of vigor or refreshment is uniformly imparted by the natural; half a pint of water will as effectually satisfy thirst to-day as it did twenty years ago or will twenty years to come, and so will a pound of bread as to hunger; but the unnatural, the artificial, as opiates, drugs, liquors, tobacco, etc., require to have constantly increasing quantities and in diminished intervals to have a given effect.—*Hall’s Journal of Health.*

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Thousands die annually, by simply “taking a cold.” A cold is usually taken either by being chilled — putting on damp clothing — or cooling off suddenly after exercising freely. To avoid undue changes in the temperature of the body, made in either of these ways, is to promote health and prolong life.

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#### TO DENTISTS.

Back numbers of the JOURNAL, for circulation among patients, can be had at *six dollars per hundred*, by applying to the publisher. To educate patients, and to enable them to appreciate the services of the dentist, no better medium than this can be found.

H.

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**DENTAL JOURNAL.**

EDITED BY

**W. W. ALLPORT, D. D. S.**

QUARTERLY.—JANUARY, 1864.

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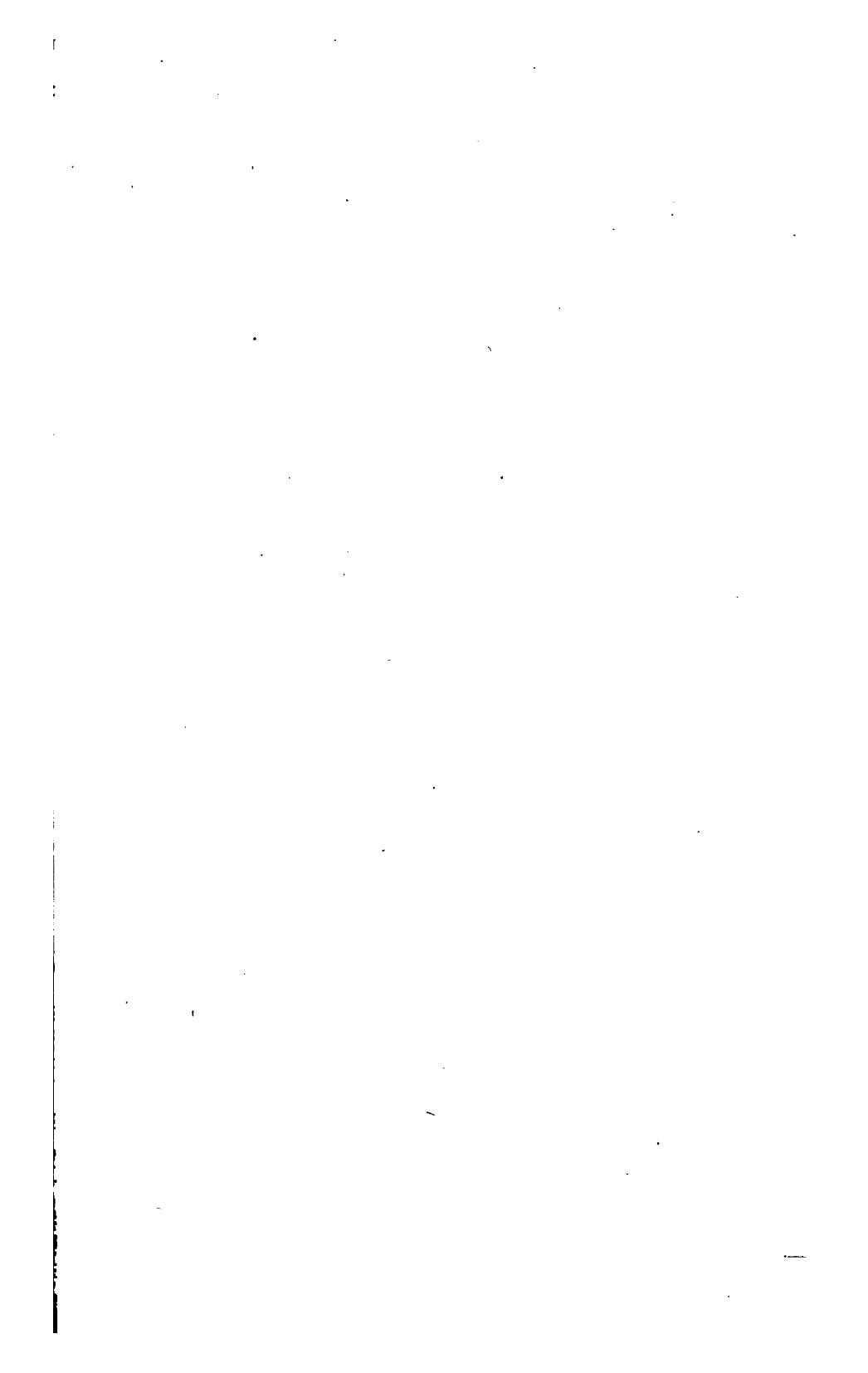
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